

Motion Pictures in History Teaching

A Study of the Chronicles of America Photoplays
as an Aid in Seventh Grade
Instruction

By
Daniel C. Knowlton
and
J. Warren Tilton



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Motion Pictures in History Teaching



An ox-drawn tumbril passes through the gates of the stockade,
on its way to the nearby fields.

(From "Jamestown," one of The Chronicles of America Photoplays)

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Daniel C. Knowlton, Ph.D.
and
J. Warren Tilton, Ph.D.



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D. C. K.

J. W. T.

Contents.

List of Illustrations

xi

Part I. Description of the Experiment.

Section

I. Description of the Photoplays Used	I
II. Plan of the Experiment Outlined	7
III. Measurement of Enrichment: the Knowlton Tests	10
IV. Measurement of Standardized Progress: the Van Wagenen Scale	21
V. Measurement of Interest	23
VI. Calendar	29
VII. Experimental Control	31

Part II. Results.

VIII. Comparison of the Gains Made by Experimental and Control Groups on the Knowlton Tests	41
IX. Evaluation of the Excess Experimental Group Gain on the Knowlton Tests in Terms of the Intellect It Would Have Required To Achieve It	48
X. Gains Made by Experimental and Control Groups on the Van Wagenen Scale	52
XI. The Effect of the Photoplays upon Retention	57
XII. Comparison of Experimental and Control Groups as to (a) Participation in Classroom Discussion (b) Expression of Interest (c) Voluntary Reading	65
XIII. Analysis of the Contribution of the Photoplays	74
XIV. Summary Statement of Results and Conclusions	87

APPENDIX

I. Knowlton Tests	94
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II. Readings Used in Measuring the Effect of the Photoplays upon the Amount of Voluntary Reading of History	117
III. Books Used in Preparing the Set of Readings	167
IV. Information Supplied in the Control Classes Because It Was in the Photoplays, but Not in the Textbooks	169
BIBLIOGRAPHY OF REFERENCES	183

Tables.

I. Concepts Which the Various Sections of the Knowlton Tests Were Designed To Measure	15
II. Percentages of Test Items	
(a) Checked as Not Worth Teaching	
(b) Failed by Five or More of Ten Teachers	
(c) Both Checked and Failed	18
III. Reliability Coefficients for Some of the Measures Obtained with the Knowlton Tests	19
IV. Gains Made by Each Section on Each of the Five Knowlton Tests	42
V. Comparison of Gains on the Separate Knowlton Tests	43
VI. Comparison of Combined Knowlton Test Gains	44
VII. The Effect of Reductions of Differences in Mental Age, Educational Age, Intelligence Quotient, and Educational Quotient upon Differences in Gains	45
VIII. Comparison of Gains on the Knowlton Tests for Individually Matched Groups	46
IX. Initial Scores and Gains Made by the Experimental Group and the Higher-Ability Control Group	49
X. The M.A., E.A., I.Q., and E.Q. Handicaps Overcome by the Experimental Group in Equaling the Gain Made by the Control Group on the Five Knowlton Tests Combined	50
XI. Gains Made by Each Section on the Van Wagenen American History Scales, Information Scale C-2	53
XII. Comparison of Experimental Group f-i-j-l and Control Group B-E-K-N and of the Gains Made by These Groups on the Van Wagenen Scale C-2	53
XIII. Dates of Testing	58
XIV. Comparison of Points Gained, Lost, and Retained on the Separate Tests	58

XV. Per Cent of Gain Retained for Each Test, and Related Factors	60
XVI. Per Cent of Gain Retained According to the Kind of Knowledge	61
XVII. Comparison of Experimental and Control Groups as to the Number of Pupil Participations per Section per Period, for Each Instructional Unit and for the Five Units Combined	66
XVIII. Comparison of Experimental and Control Groups in Number of Voluntary Readings in the Classroom under Controlled Conditions	73
XIX. Comparison of Gains and Retentions on the Knowlton Tests Regrouped as Tests of Time, Place, Person, and Relation	75
XX. Ranking (within Each Teacher's Influence) of the Contribution of the Photoplays to the Teaching of Time, Place, Person, and Relation	75
XXI. Ranking (within Each Knowlton Test) of the Contribution of the Photoplays to the Teaching of Time, Place, Person, and Relation	76
XXII. Data for the Determination of the Extent to Which the Contribution of the Photoplays Depends upon	
(a) Nature of Knowledge Measured	
(b) Extent to Which the Knowledge Is Worth Teaching	
(c) Extent to Which Teachers Have This Knowledge	78
XXIII. The Relation of the Contribution of the Photoplays to	
(a) Nature of Knowledge Measured	
(b) Extent to Which the Knowledge Is Worth Teaching	
(c) Extent to Which Teachers Have This Knowledge	81

Illustrations.

An ox-drawn tumbril passes through the gates of the stockade	<i>frontispiece</i>
French traders offer gifts to the Indians, 1753	2
General Wolfe gives instruction to his aide Captain Hervey Smith	4
The surrender of Cornwallis at Yorktown	6
Captain Miles Standish and Captain Jones of the Mayflower	34
Thomas Morton, appearing before Archbishop Laud and the Commission, prefers charges against the Puritans	36
Pocahontas and John Rolfe, after their wedding in the Jamestown church	102
Messengers from England arrive with orders from Sir Ferdinando Gorges	116
The Pilgrims assemble in the cabin of the "Mayflower" in November, 1620	120
Director-General Peter Stuyvesant in New Amsterdam	136
George Washington in command of Virginia troops marching against the French	148
The British and the French on the Plains of Abraham	152
The Minute Men of Lexington	158
Congress assembled in Independence Hall, June 7, 1776	168
Washington and his generals hold a council of war at New Windsor headquarters	180
Governor Hamilton and his men salute George Rogers Clark at Fort Sackville	182

PART I

Description of the Experiment.

SECTION I

Description of the Photoplays Used.

THE photoplays used are known as the Yale Chronicles of America Photoplays. They are historical dramas setting forth a number of important developments in American History very much as the playwright unfolds his plot by dialogue, change of scene, and action. The length of the photoplays, three reels, is fixed by school practice which makes it almost imperative that the story be unfolded, if it is to be presented in its entirety, within a period of from forty to forty-five minutes. Accuracy of portrayal is vouched for by specialists in the phases of history portrayed. The dramatic structure of the photoplays has been carefully supervised by Prof. George Pierce Baker of the Drama Department of Yale University. Of the fifteen photoplays already produced, ten were used in the experiment. These ten may be briefly described, as follows:

JAMESTOWN: A faithful impression of the Jamestown settlement in 1612 under the stern rule of Sir Thomas Dale. The daily life of the colonists. The ever present menace of the Indians whose hostility is aggravated in part by Spanish intrigue. The capture of Pocahontas, her marriage to John Rolfe and the end of Powhatan's war of extermination, factors contributing to the successful establishment of the first permanent English settlement in America.

THE PILGRIMS: The struggle for religious freedom

as typified by the story of the Pilgrims. Starting with the experiences of the Separatists at Scrooby, England, their migration to Holland during 1607-8. Twelve years later, the departure of the devoted band for America. The voyage of the *Mayflower*. The landing on Plymouth Rock. Hardships and suffering during the first winter. The refusal of the Pilgrims to return to England and other incidents revealing their faith and devotion to the ideal of freedom in religious thought and expression.

THE PURITANS: The economic background of the Massachusetts Bay Colony. Life in early New England, 1630, contrasted with the court of Charles I. The political moves behind Thomas Morton's effort to discredit the Puritans in England and to bring about the revocation of their Charter. The rise of political dissension at home, including the departure of Roger Williams. The capable leadership of Governor Winthrop successfully bringing the colony through this dual crisis in its affairs.

PETER STUYVESANT: A summary of the outstanding events from 1653 to 1664 which reveals how Dutch New Amsterdam became English New York. Life in the picturesque Dutch colony under the stern rule of Stuyvesant. The attitude of England toward Dutch colonial ambitions on the Hudson. The decision, strengthened by reports of Englishmen on Long Island, to send a fleet against New Amsterdam. The growing restlessness of Stuyvesant's citizens under his autocratic administration. The arrival of the English fleet. Preparations for battle. The bloodless surrender of New Amsterdam by Stuyvesant after standing out against his counselors and citizens to the last moment.

THE GATEWAY TO THE WEST: Suggesting the beginning in 1753 of the bitter conflict for the vast wilder-



In 1753 French traders on a tributary of the Ohio River offer gifts to the Indians to keep their good will during the inevitable conflict with the English.

(From "The Gateway to the West," one of The Chronicles of America Photoplays)

ness west of the Alleghanies, between France, working south from Canada, and England, pressing westward from her seaboard colonies. Presenting, also, a charming picture of life in Old Virginia. In detail, the experiences of young Col. George Washington, sent by Governor Dinwiddie to protest the French occupation of the Ohio Valley. Washington receives a curt refusal. A successful skirmish brings down upon his small force a large body of French reinforcements. He retreats but is forced to stand at "Fort Necessity." To save his command, he surrenders; a significant defeat since it opened the eyes of England's ministers to the seriousness of the French menace in America.

WOLFE AND MONTCALM: The bitter struggle between France and England in America, culminating in the battle of the Plains of Abraham and the fall of Quebec in 1759. The acute situation in world politics which prompted William Pitt to send an army overseas under command of Gen. James Wolfe. The situation in New France with General Montcalm hampered by the jealousy of Vaudreuil, Governor-General. The military strategy of Wolfe. His attack on Quebec. Montcalm's desperate defense. The clash on the Plains of Abraham. The occupation of Quebec and the arrival of the English fleet the following spring.

THE EVE OF THE REVOLUTION: Depicting the most significant incidents of the decade 1765-75 and through these interpreting the state of mind of the people as the movement for independence gained impetus. In detail, re-creating scenes incident to the Stamp Act and the stand against "Taxation without Representation." Also re-creating the "Boston Massacre," the "Boston Tea Party," the Salem Assembly, the rides of Paul Revere and William Dawes, Jr., the sharp military clashes at Lexington Green

and Concord Bridge, and the retreat of the British. In short, the most notable events preceding the actual outbreak of the War of Independence.

THE DECLARATION OF INDEPENDENCE: An account of the efforts of a small group of patriots to bring about a unanimous vote in favor of independence which reveals the three outstanding attitudes of public opinion in 1776, as represented by Tories, Conservatives, and those in favor of absolute independence. The influence of pamphleteers, typified by Thomas Paine and his "Common Sense," the unofficial gatherings of delegates, the concern of John Adams, Franklin, and others as to the attitude of France, the proceedings of the Second Continental Congress culminating in the famous session of July 2, 1776, when a unanimous resolution for independence was secured. The formal adoption of the Declaration on July 4, and the subsequent excitement.

YORKTOWN: The progress of the War of Independence between January and October, 1781. The hardships and sufferings of the American troops. The problems facing General Washington due to discouragement and mutiny. The international aspects of the campaign of 1781 and the aid rendered by French leaders. Washington's march south. The arrival of the French fleet in the Chesapeake. The successful outwitting of Clinton and Cornwallis. The battle of Yorktown and the subsequent surrender of Cornwallis.

VINCENNES: The struggle for supremacy along the frontier when the American colonies were fighting for independence in the east. Hamilton, British Governor-General of the Northwest, occupies Vincennes to curb the influence of westward-spreading pioneers. George Rogers Clark, to rid the country both of Hamilton and of his Indian allies,



General Wolfe, commander of the British forces, gives instructions
to his aide Captain Hervey Smith, on the eve of the
attack on Quebec.

(From "Wolfe and Montcalm," one of The Chronicles of America Photoplays)

strikes out from Kentucky and reaches Kaskaskia before cold weather in 1779. Hamilton, protected by a seemingly impenetrable wilderness, feels secure until spring. Grasping his opportunity, Clark presses on across the "Drowned Lands" in the face of tremendous hardships and captures Vincennes, breaking the influence of the British over the Indians and winning for the Republic the vast territory from which later were formed the states of Ohio, Indiana, Illinois, Michigan, and Wisconsin.

Photoplays of this type have not heretofore been experimentally evaluated. Of the films used in the study directed by Freeman,¹ only five could be classified as historical motion pictures, and four of these were in the field of economic history. All of them were quite different from the photoplays used in this experiment. The most comprehensive motion picture in the experiment described by Freeman was "French Explorations in North America," produced by the Society for Visual Education. The footage was 734 feet, less than one reel. Only 13 per cent of this included motion pictures. Fifty-six per cent consisted of animated cartoons and maps. The story element was entirely lacking.

The contributions to history teaching which have been predicted for the Yale Chronicles of America Photoplays are, in descending order of frequency of mention in sixty-eight sources:

1. The creation of interest,
2. The production of a more vivid imagery and more lasting impressions,
3. The modification or creation of attitudes and ideals,
4. The enrichment of history teaching.

¹ F. N. Freeman, editor, *Visual Education: A Comparative Study of Motion Pictures and Other Methods of Instruction* (Chicago, Illinois: University of Chicago Press, 1924).

Probably this order is not so much an indication of relative educational importance as it is of the effect which the photoplays had upon the makers of these predictions. This is borne out by the fact that in the same sources the qualities of the photoplays most frequently mentioned are: first, dramatic interest; second, reality; third, historical fidelity; and fourth, beauty.



The surrender of Cornwallis at Yorktown. General Washington indicates that Cornwallis' sword, presented by General O'Hara, shall be received by General Lincoln, an officer of equal rank.

(From "Yorktown," one of The Chronicles of America Photoplays)

SECTION II

Plan of Experiment.

THE purpose of this experiment was to measure the contribution of the photoplays to enrichment, retention, and the creation of interest. These are the first, second, and fourth kinds of predicted contributions mentioned in the preceding paragraph. The third, effect upon attitudes, is included only in so far as it is covered in manifestations of interest.

Briefly stated, the plan of procedure was as follows:

1. To measure the extent to which the photoplays contributed enrichment by

(A) Devising tests¹ with which to measure in a full and worth-while way the results achieved in those instructional units in which the photoplays were used.

(B) Giving these tests before and after instruction.

2. To determine whether the enrichment, if found, was secured at the expense of normal progress in the prescribed course of study by

(A) Giving a standardized test at the beginning and end of the experiment.

3. To analyze the enrichment contributed, if found, by

(A) Separating the Knowlton Tests into four parts as follows:

- (a) Questions calling for knowledge of time,
- (b) Questions calling for knowledge of historical geography,
- (c) Questions calling for knowledge of persons,
- (d) Questions calling for knowledge of the interaction of events, or causal relationships, or interrelationships other than time.

¹ These tests were devised by D. C. Knowlton, and will be referred to as the Knowlton Tests.

(B) Comparing the four kinds of contributions.

4. To measure the contribution of the photoplays to retention by

(A) Giving the Knowlton Tests a third time.

5. To measure the contribution of the photoplays to the creation of interest by

(A) Having observers keep detailed records of pupil participation in classroom discussion.

(B) Having the pupils rank history among their other subjects of study.

(C) Getting records of history read outside the classroom.

(D) Measuring the amount of voluntary reading under controlled classroom conditions.

This plan was carried out in the seventh grade of the Troup Junior High School of New Haven, Connecticut. The grade was composed of 521 pupils, divided into fifteen sections of approximately thirty-five pupils each. The pupils had been sectioned, within the limitations of administrative necessity, on the basis of Otis Classification Test quotients and teachers' judgments. The fifteen sections were designated by letters in alphabetical order from A, the highest, to O, the lowest. The fifteen sections were taught by six teachers, A, F, and K by one, B and L by another, C and H by a third, D, I, and N by a fourth, E, J, and O by a fifth, and G and M by a sixth. For the whole grade the median mental age was twelve years and eleven months, and the median intelligence quotient was 105. For reasons stated later, sections f-h-i-j-l-m were chosen to constitute the experimental group and B-C-G-K-N-O were chosen to constitute the control group. Small letters will be used in referring to experimental sections, and capital letters in referring to control sections.

All photoplays were projected in the regular social studies classrooms. They were projected from the rear upon a Trans-lux or Daylo screen by a portable machine carrying standard width non-inflammable film. A lens of short focal length was used with the throw varying from four and a half to six feet, and producing an image of approximately sixteen by twenty-four inches. The machine was operated by an experienced operator. As the pictures were projected, the titles were read by the teacher.

The plan of the experiment, and the method of procedure, are described in more detail in the following five sections.

SECTION III

The Measurement of Enrichment—the Knowlton Tests.

IT is of far more importance to measure the power of the photoplays to enrich teaching which is already good than it is to measure their contribution to poor teaching. It is also more difficult. The latter is entirely a problem of measurement; the former involves a definition of good history teaching, and the securing of such teaching in addition to the problem of measuring results.

In an attempt to define more precisely the goals of effective teaching, cognizance was taken of the demand for a type of instruction in history which carries with it the impress of reality.

The essential task of the teacher of history was therefore defined as that of conveying an impression of reality that the men and women of the past actually existed, and that they were very much like the people of our own day, but that they moved about in a different environment and were affected by different conditions.

There are at least three aspects of this vivid contact with the subject which measure the reality impressed upon the child. There is first of all a time sense to be inculcated, a feeling for and appreciation of time, as all these human situations are conditioned by it. Time relationships must be taught, and various methods must be employed to impart this feeling or appreciation. Learning lists of dates may be absolutely meaningless in this connection. On the other hand such lists of dates may be of value when the whole of which

they are a part begins to be apprehended. Again, environmental or spatial relationships, so far as they concern human-kind, constitute another important aspect of the instruction. These are often referred to as historical geography but under this designation they are often confused with human geography. We may speak of spatial relationships separately, but the time element is always present. It is more important to teach the changing influence upon mankind of changing environmental conditions through the centuries than it is to teach the influence of conditions at a given time. This is something more than a matter of locational geography. Finally, there is the human element itself, the interaction of personalities, in both a time and a place setting. To state it somewhat differently, there are series of changes taking place in which the human factor is constantly being involved. To appreciate this interaction the pupil must sense the dramatic character of the past, and the play of human passions and human emotions, which is the essentially human, living aspect of this interplay of personalities.

An attempt was made to develop teaching which would accomplish the objectives defined above. During the year preceding the experiment procedures were tried out and the results closely observed, in order that the new instrument might be used in a more or less approved teaching situation. Stenographic reports of the lessons were made by competent secretaries so that the type of reaction was recorded and the apparent success or failure of that particular method was a matter of record as well as of observation.

From November 1, 1927, to the end of the school year in June, 1928, D. C. Knowlton planned and directed the history teaching of the seventh grade. At the outset, a series of conferences was held with the six history teachers, and a

schedule of lessons was planned which was faithfully followed throughout the remainder of the school year.

The following five instructional units indicate the nature of the history taught during the experiment from February to June, inclusive:

Unit I: Settlement, 1600-1660; the English move westward (15 lessons).

Lesson I. The incentives for moving: trade and religion. (A series of pictures of happenings, 1600-1660.)

Lesson II. The religious incentive versus the trade.

Lessons III-IV. The first religious colony. (Film, The Pilgrims.)

Lesson V. More religious migrations and the reasons; the Puritans move. England in 1629-60.

Lesson VI. The Puritans in England, 1629-60.

Lesson VII. The Puritans in America: their first ten years. (Film, The Puritans.)

Lessons VIII-IX. Later years in America; making New England Puritan.

Lessons X-XV. Other colonies established within the period.

Unit II: Life in Europe versus life in America (6 lessons).

Lessons I-II. Problems recognized: the Indians, nature, living together.

Lessons III-IV. Jamestown as a concrete illustration of the nature of the problems and how they were met. (Film, Jamestown.)

Lessons V-VI. Experiences in other colonies.

Unit III: England extends her domains and ousts the Dutch (6 lessons).

Lesson I. Rival European nations elbowing each other, 1660-1760.

Lesson II. Happenings in England responsible, 1660-89.

Lesson III. One result: the new southern colonies.

Lesson IV. Another result: the Quaker colony.

Lesson V. The undesirable Dutch neighbor.

Lesson VI. The entire seaboard from Maine to Florida becomes English. (Film, Peter Stuyvesant.)

Unit IV: Ambitious kings and conflict (13 lessons).

Lessons I—II. A great king.

Lessons III—IV. Extension of the great king's dominions.

Lessons V—VII. Renewal of struggle: Frederick the Great and European and colonial conditions responsible.

Lesson VIII. The conflict in America, 1756—63. Its beginnings. (Film, Gateway to West.)

Lessons IX—XI. World-wide character of conflict and its continuation in America.

Lesson XII. Getting a decision. (Film, Wolfe and Montcalm.)

Lesson XIII. The outcome.

Unit V: The American Revolution (16 lessons).

Lesson I. Added territory and the consequences.

Lesson II. An approaching storm.

Lessons III—V. A divided England and a divided America. (Film, Eve of Revolution.)

Lessons VI—VIII. Separation and war. (Film, Declaration of Independence.)

Lessons IX—XII. The war game and how it was won. (Film, Yorktown.)

Lessons XIII—XVI. A tale of daring and adventure, and the gains of the war. (Film, Vincennes.)

Although the teaching was supervised, the teachers were not restricted. They were at liberty to make such use of pictures and maps as might commend themselves, provided they used such materials in control and experimental sections alike. Two textbooks had normally been used in these classes: Gordy, *History of the United States*, and Beard and Bagley, *History of the American People*. These were supplemented for both groups by a manuscript textbook in

mimeographed form and without illustrations, covering the period which was being studied. The principal of the school, who knew the manuscript was in preparation, had expressed a desire to use it because of its larger emphasis upon the European background, and also because of the contacts which it made with the geography. The course planned for the seventh grade represented a combination of history and geography. No special textbook was used for the geography. One social studies period a week was used for the consideration of current events, leaving four to be divided between the history and the geography. The history received the greater emphasis.

An approach to the problem of measurement was made during the year preceding the experiment. The written work and the stenographic records of the oral work of the history classes were carefully studied as an aid in determining the form and content of suitable tests.

Five objective tests¹ were constructed, one for each of the instructional units listed above. The first test covered nine of the fifteen lessons of Unit I and the fourth covered nine of the thirteen lessons of Unit IV. The other three covered all of the lessons of their respective units. Taking them in order, the tests measured the results of 9, 6, 6, 9, and 16 lessons. The number of photoplays used in the five units were 2, 1, 1, 2, and 4. The fractional parts of the experimental teaching which were spent in the showing of the photoplays were therefore in the five units, $\frac{2}{9}$, $\frac{1}{6}$, $\frac{1}{6}$, $\frac{2}{9}$, and $\frac{4}{16}$. The average is one-fifth, but this is high since the showing of a photoplay occupied but forty-five of the fifty-five minutes in a period. The corrected average is approximately one-sixth. In other words, the five tests were

¹ See Appendix I for copies of the tests, and the testing instructions used.

designed to show how much a period of instruction was enriched by using photoplays one-sixth or 17 per cent of the time.

These five tests were designed to measure the ability of the pupil to deal intelligently with certain concepts, namely: (a) of time, (b) of place, (c) of person, and (d) of the interaction of events and of the interplay of forces. For the sake of economy this last has been designated as knowledge of relations other than time, or briefly as relational. The distribution of emphasis may be readily seen in Table I.

Table I

Concepts Which the Various Sections of the Knowlton Tests Were Designed To Measure.

<i>Test</i>	<i>Instruc- tional Unit</i>	<i>Sections of the tests designed to measure concepts of</i>			
		<i>Time</i>	<i>Place</i>	<i>Person</i>	<i>Relation</i>
Pilgrims and Puritans	I	I, II	IV, V, VI	VIII, IX	III, VII
Life in the Colonies	II	II	I, III, V	IV
Peter Stuyvesant	III	III	VI	I, II	IV, V
French and English	IV	I	II	III, V	IV
Revolution	V	I, II, III	IV	VI	V, VII
<i>Total number of sections</i>		8	9	7	8

Many history teachers may think that no objective test is adequate to measure history teaching in a worth-while way. For instance, Krey,² describing the use of objective tests in the University of Minnesota, writes as follows:

We have an uneasy feeling that in using these objective tests, most of the thinking has been done by the instructors, leaving to the student merely the task of supplying a few bits of information involved

² A. C. Krey, "What Does the New-Type Examination Measure in History?" *The Historical Outlook*, XIX (April, 1928), No. 4, pp. 159-162.

in that thinking. Most of our staff are old fashioned enough to believe that they have discharged their responsibility for the thinking in guiding the daily work of the course and that at examination time it is the student's turn to show how well he can think with the materials of the course. In other words, they feel that they want to test the student's ability to "think," whatever that may mean.

But Thorndike³ found that he could tell which individuals possessed this "ability to think" about as well by finding out how much they had to think with as he could by requiring them to think while taking a test. We are not unaware of the uses of tests as teaching devices and would agree with Krey that the instructor should have done his thinking before the time of testing, but we would maintain that the students as well as the instructor should have done most of their thinking before that time. If a test reliably furnishes true information of pupils' ability to think (and this may be answered statistically), then for strictly measuring purposes it is good, whether thinking is done while taking the test or not.

However, even though our present purpose in testing is strictly to measure and not to teach while testing, the tests do require thinking on the part of the pupils tested, while they are taking the tests.

Assuming that the tests are not inadequate because of their objective form, is the content of such a nature as to measure enrichment of a worth-while sort, or are the tests made up of questions of petty detail such as can only be answered by seeing the photoplays? It has already been stated that each test was designed to measure a full unit of instruction, and the knowledge called for was thought to be worth acquiring.

³ E. L. Thorndike, *The Measurement of Intelligence* (New York: Teachers College Bureau of Publications, 1926).

The extent to which the knowledge called for was worth acquiring was checked as follows: Five competent judges⁴ were asked to read through the tests and to check those questions calling for knowledge which in their judgment was not worth acquiring in the junior high school. There were 395 questions⁵ in the five tests. The number of these questions checked varied for the five judges from seven to thirty-one. Altogether, sixty-one different questions were checked. One was checked by all five judges; nine were checked by three; four by two; and forty-seven by one only. In the opinion of three of the judges, 385, or 96 per cent, of the 395 questions, call for worth-while knowledge.

As a check on the extent to which the questions asked for a knowledge peculiar to the pictures, ten history teachers were given the tests. They were grade, junior, and senior high school teachers, selected entirely upon the basis of their willingness to take the tests and their not having seen the photoplays. Seventy-four per cent of the questions were answered correctly by six or more of the teachers.

Only four questions, 1 per cent of the total number, called for a knowledge not possessed by a majority of the teachers tested, and were pronounced not worth acquiring by a majority of the judges. In other words, the criteria used revealed only a small percentage of "poor" test questions. They are distributed among the tests as shown in Table II. Results will be based upon the use of all of the 395 ques-

⁴ 1. Miss Mary Hardin, Social Studies Department, New Haven State Normal School.

2. Mr. Tyler Kepner, Supervisor of Social Studies, Brookline, Mass., Public Schools.

3. Prof. Bessie L. Pierce, Department of History, University of Iowa.

4. Mr. E. B. Smith, State Department of Education, Albany, N. Y.

5. Prof. Fremont Worth, Peabody Teachers College, Nashville, Tenn.

⁵ Each scorable item is called a question.

tions. They are only slightly affected by the presence of the "poor" questions, and that in a way to minimize the contribution of the photoplays, not to enhance it. That is, it will be shown in Section XIII that when the contribution of the photoplays is computed from the use of only the most frequently known and most worth-while questions, the contribution is higher than with all questions included. In view of this fact, the tests are to be criticized, if at all, for not measuring the full contribution of the photoplays to worth-while teaching.

Table II

Percentages of Test Items

- (a) *Checked by One or More of the Judges as Not Worth Teaching,*
 (b) *Failed by Five or More of Ten Teachers,*
 (c) *Both Checked and Failed.*

<i>Tests</i>	<i>Checked as not worth teaching</i>	<i>Failed by five or more of ten teachers</i>	<i>Both checked and failed</i>
Pilgrims and Puritans	24	29	8
Life in the Colonies	6	18	2
Peter Stuyvesant	19	31	5
French and English	7	30	6
Revolution	20	23	9

The reliability of the judgments was not computed because so few items were checked by the five judges, but it was computed for the percentages of teachers answering an item correctly. The ten teachers were divided into two groups of five each. The number of one group answering an item correctly was correlated with the number in the other group answering the same item correctly. The correlation was .83. This means a reliability of .91 for the measures ob-

tained from all ten teachers, and establishes confidence in the criterion used.

Table III

Reliability Coefficients for Some of the Measures Obtained with the Knowlton Tests.

	<i>Half with half</i>	<i>For the whole test</i>
Initial score on		
Pilgrims and Puritans	.32	.49
Life in the Colonies	.42	.59
Peter Stuyvesant	.26	.41
French and English	.16	.28
Revolution	.32	.49
All tests combined	.85	.92
Gain on		
Pilgrims and Puritans	.20	.33
Life in the Colonies	.18	.31
Peter Stuyvesant	.19	.32
French and English	.22	.36
Revolution	.30	.46
All tests combined	.57	.73
Retention of		
Time knowledge	.18	.31
Place knowledge	.48	.65
Person knowledge	.06	.11
Relation knowledge	.22	.36
All tests combined	.63	.77

Reliability coefficients for some of the measures obtained by the use of the tests are given in Table III. The reliabilities of the second and third testing were probably higher.

The pupils knew more and guesswork played a smaller part in their answering. The tests had to be given without preliminary use and improvement, but they proved to be well adapted to the seventh grade, as shown by the fact that there were no undistributed scores on either testing. They gave total measures of learning and of retention which were more than sufficiently reliable for group comparison.

Testing was done before and after each instructional unit, instead of before and after the whole experimental period, for two reasons: first, to permit an evaluation of the result in terms of the consistency in the five measurements in case the difference was not statistically reliable; and second, which was more important, to measure learning apart from forgetting.

The effect of the photoplays upon forgetting or retention was measured by repeating all five of the Knowlton Tests during the first few days of school in September, 1928.

The same tests were used for all three testings. Practice effect was not determined, because all uses of the test scores involved comparisons of gains or retentions to which practice effect may be assumed to have contributed equally. Teachers were not shown the tests until after they were used for the second testing, in order to prevent the teachers from teaching for the tests.

SECTION IV

The Measurement of Standardized Progress—the Van Wagenen American History Information Scale C-2.

FOR two reasons, it seemed advisable to measure the progress made during the experiment with a standardized test: first, to determine whether or not "normal" progress was made during the experimental period; and, second, to determine whether or not the photoplays' contribution, if found, was made at the expense of "normal" progress.

A Van Wagenen Scale was used because of its high rating¹ and reliability. The P.E. of a scale score, according to the manual of directions, is 2.1 points or about one-third of a normal year's progress.

Progress was determined by using the same scale before the experimental teaching began and again at the end of the year. Practice effect was determined by giving the test on successive days to a class of thirty-five pupils. On the second day, the following announcement was made:

"This is the same test you took yesterday. You did well yesterday, but pupils can nearly always make higher scores by taking a test the second time, so we are giving the test again to see how much better you do today than you did yesterday. Try to answer each question."

The average scores were as follows: on the first day, 79.4, on the second day, 80.3. The practice effect for this group was therefore approximately one point.

¹ T. L. Kelley, *The Interpretation of Educational Measurements* (Yonkers, N. Y.: World Book Co., 1927), p. 266.

The correlation between scores on the successive days was $+.88$.

It was originally planned to start the experiment earlier with a smaller number of sections. When in December it was found possible to include the whole grade, some testing had been done in such a way as to render some of the sections useless so far as comparisons with the Van Wagenen Scale were concerned. Consequently but nine of the fifteen sections were tested in addition to the section in which practice effect was determined. B, E, f, j, K, and l were tested on December 5, 1927, D, i, and N on January 26, 1928, and all nine again on June 18, 1928.

SECTION V

The Measurement of Interest.

To discover any evidences of interest in the form of pupil participations attributable to the use of the photoplays, eight classes were selected for close observation over the period covered by the experiment. These were A, f, and K, taught by Teacher No. 1; B and l, by Teacher No. 2; and E, j, and O, by Teacher No. 5. It will be noted that f, j, and l are film divisions. These eight were selected to fit the convenience of the observers.

Three trained observers, including one of the writers, made a series of records of pupil participation in these classes. The seating plan of the class was used as a record blank as shown in Fig. I. In the left margin the observer recorded the number of hands raised in answer to the questions asked by the teacher, and in the right margin he recorded the number raised when the showing of hands indicated a desire on the part of the pupils to follow up still further the line taken by the questioning. These records were designated, respectively, on the form as "Direct Question" and "Further Interest." Every time a pupil answered a question an R was placed in the square corresponding to his seat. Careful note was also made of the questions asked by individual pupils and these were indicated in the squares by A's. Remarks voluntarily contributed, whether pertinent to the particular topic under consideration or resulting from an interest in what was being done in the group, were indicated by either V or a C. C was used if the remark represented a contribution from outside the classroom, as a clipping, or some reference to a book in history which the pupil had read and

Description of Experiment

Figure I.

Direct Question	Date..... Observer.....					Further Interest
8	Teacher..... Section.....					3
7						2
8						5
4	RR	R	R	R	RR	4
9	V		CCC		VV	8
12	CC					5
3	AA					4
5	RR	Absent		R	R	4
8	VV			VV	VV	5
5	AA				A	2
8						4
9		V	RR	R	RRR	2
7			V	V	VVVV	3
7					CCC	3
4						4
10		R	R	RR		3
10		VVV	C			2
2						1
3						2
10						2
9	R		C	R	R	6
6	V			V	V	2
8						4
6						3
8						2
3	RR	R	V	C	R	4
7		VVV				2
9		C				4
		A				4
	R	R	R		R	4
			C		V	3
			AA			
No. = 28						No. = 31
Tot. = 195						Tot. = 105
Av. = 7.0						Av. = 3.4

R=32

V=27

C=13

A= 8

P. P.=80

which he wished to mention, or some experience which he had had, as visiting some historic site, or the recounting of something which a member of his family had told him. Other voluntary remarks, i.e., those not reflecting outside interest, were recorded with a V. Every pupil remark was called an R, V, C, or A so that the sum of the R's, V's, C's, and A's equaled the number of pupil participations.

In getting measures of pupil participation in classroom discussion, the observers counted the number of pupils raising their hands to answer the teacher's question until the rank of eight sections in this respect by half of their records agreed with the rank by the other half except for a reversal in the seventh and eighth positions. This means a coefficient of reliability (by the rank difference method) of .99 for their total measures. By the same method, the reliability of class measures of hand showings which were not directly teacher-initiated was .94. These measures being adequate for the comparison of single sections are still more so for several sections combined.

Pupil scores for number of participations, (a) when called on, (b) when permitted to take part, (c) to contribute from outside sources, and (d) to ask questions, were obtained with reliabilities on the whole measures of .85, .95, .63, and .80, respectively. The lowest of these coefficients is quite high enough for the purposes of group comparison.

To see whether the pupils who were shown the photo-plays enjoyed history more than the other pupils did, all were asked to rank their subjects of study in the order of their preference. The principal secured the ranking in June. In September the home-room teachers asked for the same information as a check on reliability. The form used is shown in Fig. II.

The reliability or consistency with which history was ranked among the other subjects was found by plotting the rank assigned history by a given pupil in June against the rank assigned history by the same pupil in September. The correlation between ranks is $+.57$, and the predicted reliability coefficient for the combined ranks is $+.73$.

Figure II.

Name..... Division.....

These are seven of the subjects you are studying.

ENGLISH
CURRENT EVENTS
MATHEMATICS
HISTORY
MUSIC
PENMANSHIP
PHYSICAL TRAINING

Pick out the one you like best and write it below on line 1. Then pick out the one you like next best and write it on line 2, and so on down the list. No. 7 will be the one you like least, and No. 6 next to the least.

1.
2.
3.
4.
5.
6.
7.

The school librarian was asked to keep a record of the reading of history by the seventh grade pupils during their library periods (books were not taken out). The record was kept conscientiously, but there were not enough entries to permit a computation of reliability.

When it was found that a reliable measure was not forth-

coming from the librarian's record, the English teachers were asked to get from all seventh grade sections a list of reading done during the half year of the experiment. The length of these lists reflected the different influences of the English teachers and unfortunately these unequal influences affected the control and experimental groups unequally.

However, a measure of voluntary reading was obtained in the classrooms under carefully controlled conditions. Each of the five units of instruction was followed by a twenty-five-minute reading period. Eight readings of from 350 to 400 words each, were prepared in mimeographed form for each unit. These were brought together from a variety of sources.¹ They either represented information which was not conveyed by the film or by the textbook or which set forth the facts in a somewhat different fashion from that with which the pupils were already familiar. Every effort was made not to duplicate ground already covered and to select passages which could be organized as distinct reading units more or less complete in themselves. In some cases the extracts were carefully edited to avoid some of the language difficulties involved. Each reading selection was followed by four questions which could be answered by a word or two, and which would serve to reveal more or less clearly the fact that the selection had, or had not, been carefully read.

The teacher casually announced that some supplementary history reading material had been provided, but that it would not count toward school marks and that there was no reason for reading it unless pupils wanted to. Pupils had been told the day before that if they wished to bring in any work to do or any books to read they were free to do so. In other words,

¹ See Appendix II for the complete set of readings used, and the list of sources from which they were taken.

the attempt was made to create a situation in which the selection of these readings would be on a strictly voluntary basis. Every effort was made to remove the exercise from the category of something done to please the teacher. Pupils read a paper, signed their names, with the material before them answered four easy questions on what they had read, returned the paper, and took another if they wished. They were credited with reading those papers on which two or more of the answers were correct. This method of scoring need not have been used, however, for there were very few papers with less than two correct answers on them.

The incentive was not strong enough to give a normal distribution of scores. There was a disproportionate number of low scores. The material was ample, however, for no pupil read all that was provided. The scores therefore afforded a satisfactory comparison of groups, for each group read without limitation of material; the only limitation was that of inclination. That inclination was subject, of course, to the varying demands of other school subjects. The comparison, however, of six sections with six sections on five occasions tends to minimize such uncontrollable factors.

Altogether the readings represented about sixteen thousand words or the equivalent of a book of forty pages. The reliability coefficient for the number of pages read per pupil is .73.

SECTION VI

Calendar.

THE character and order of the principal teaching and testing events in the period of the experiment were as follows:

Mon., Dec. 5. Van Wagenen Information Scale C-2 to sections B, E, f, j, K, and l.

Thurs., Jan. 26. Van Wagenen Information Scale C-2 to sections D, i, and N.

Unit I: Settlement 1600-1660; the English move westward.

Tues., Jan. 31. Test One¹ (two lessons).²

Mon., Feb. 6. Film, The Pilgrims (three lessons).

Tues., Feb. 14. Film, The Puritans (two lessons).

Mon., Feb. 20. Test One repeated.

Tues., Feb. 21. Voluntary reading.

Unit II: Life in Europe vs. life in America.

Tues., Mar. 6. Test Two (two lessons).

Mon., Mar. 12. Film, Jamestown (three lessons).

Mon., Mar. 19. Test Two repeated.

Tues., Mar. 20. Voluntary reading.

Unit III: England extends her domain and ousts the Dutch.

Wed., Mar. 21. Test Three (five lessons).

Mon., Apr. 2. Film, Peter Stuyvesant.

Tues., Apr. 3. Test Three repeated.

Wed., Apr. 4. Voluntary reading.

¹ Test One covered all of the content of Unit I, Test Two covered all of the content of Unit II, etc.

² The parentheses should be read as follows: Between the giving of Test One on Tues., Jan. 31, and the showing of the Pilgrims on Mon., Feb. 6, two days were devoted to the teaching of Unit I; between the showing of the Pilgrims and the showing of the Puritans three days were devoted to further teaching of Unit I, etc. Days not accounted for were Fridays, devoted to a discussion of Current Events, or holidays.

Unit IV: Ambitious kings and conflict.

Mon., Apr. 23. Test Four (three lessons).

Mon., Apr. 30. Film, *The Gateway to the West* (three lessons).

Mon., May 7. Film, *Wolfe and Montcalm* (one lesson).

Wed., May 9. Test Four repeated.

Thurs., May 10. Voluntary reading.

Unit V: The American Revolution.

Mon., May 14. Test Five (three lessons).

Mon., May 21. Film, *The Eve of the Revolution* (three lessons).

Tues., May 29. Film, *The Declaration of Independence* (two lessons).

Mon., June 4. Film, *Yorktown* (three lessons).

Mon., June 11. Film, *Vincennes* (one lesson).

Wed., June 13. Test Five repeated.

Thurs., June 14. Voluntary reading.

Mon., June 18. Van Wagenen Information Scale C-2 to the nine sections listed above.

Fri., Sept. 7. Tests One and Two repeated for retention.

Mon., Sept. 10. Tests Three to Five repeated for retention.

SECTION VII

Experimental Control.

THE experiment was conducted under unusually good experimental conditions. Since all study was directed and supervised in the classroom, the time spent in study was within the teacher's control. The principal of the school was more than coöperative. He contributed to the direction of the experiment in an interested and intelligent manner. His attitude was reflected in that of his staff, both teaching and clerical. Experimental work had been conducted in the school before and the teachers knew the necessity for control. They exercised it carefully and conscientiously.

In the case of two teachers, the extent to which they were consistent in their teaching from section to section was measured. Alongside of each of the 395 questions in the test, record was made of the number of pupils who learned to answer it correctly in the course of the experimental instruction. This is a good measure of the extent to which the same things were taught in different sections. Control sections D and N were taught by one teacher, and control sections E and O were taught by another teacher. The measures for D and O and for E and N were combined. The coefficient of correlation between the combined measures is .76 and for all six teachers it may be estimated to be .91. If many pupils learned to answer a certain question in one section, then many learned it in the other control section taught by the same teacher. From the number of pupils in one section who learned to answer a certain question there could be predicted, with a probable error of two pupils, the number who would

learn to answer the same question in another section taught by the same teacher.

Care was exercised to control all factors so that only the experimental factor should differentiate the work in the experimental from that in the control group. With the exception of the exercises involved in that factor, whatever was done in one section was done in all sections taught by the same teacher. One observer, for instance, did all the observing in the sections taught by the same teacher, and if an observer was present in one of a teacher's sections he was present in the others also. On those occasions when history time was lost in one section, as an offset, an equal amount of time was used for other purposes in the other sections taught by that teacher. No particular effort was made to keep conditions constant from one teacher to another, for all comparisons involve control and experimental groups upon which each teacher had an equal influence. The course of study pursued by the experimental pupils differed from that of the control pupils in only one respect, viz., that it included the use of the photoplay in addition to the textbooks and such other classroom equipment as was common to all seventh grade social studies classes.

On the day the experimental pupils saw a photoplay the control pupils were supplied with supplementary pages embodying the information which was found in the photoplay, but which was *not* to be found in either Gordy or Beard and Bagley. These pages followed rather closely the organization of the material as found in Gordy and page references were made to the same topics in that text. These supplementary pages were not left in the hands of the pupils from one period to the next, which was in accord with the practice of

the school, the teacher acting as custodian of the textbooks and distributing them as they were needed. All the work was done in the classroom. There were no home assignments, and books were not taken from the room.

The following selections were used in connection with the teaching of the Pilgrims and the Puritans.¹ The control group used this information in addition to the information to be found in their textbooks, while the experimental group was seeing the two films.

The Pilgrims and Puritans in Massachusetts and Connecticut.

GORDY, page 53²

James I Tries To Make the Puritans and Separatists Conform to the Church of England, page 54.

WILLIAM BREWSTER, the able leader of the pious little flock of Scrooby Separatists, said, "Pomp and ritual and earthly show are not needed to worship him who was born in a stable—the simple book of His Word is the only test of religious truth."

The Separatists used to hold their meetings in Brewster's home but, inspired by the action of Church and State, their neighbors tried to break up these meetings. One of the Separatists was an impetuous youth named William Bradford who resented this treatment. The action of the neighbors enraged him, and on one occasion when the disturbance was so great that the High Sheriff of Nottingham was drawn to the scene, Bradford said to him, "Why do you shake the stave of the law in the face of peaceable folk? It is the graceless blasphemers who interfere with us that you should rebuke." The Sheriff warned the Separatists that they must conform to the rules of the Church or suffer the consequences, and in the bitter year that

¹ For supplementary material used in connection with the other units see Appendix III.

² Page references are in each case to Gordy's discussion of the topics which this material supplements.

followed, persecution by both Church and State bore heavily upon the little group at Scrooby.

The Pilgrims Sail to America Where They Can Have a Free Government and Their Own Religion, page 54.

A meeting was held in the Manor House at Scrooby, and plans were made for escaping to Holland. The dangers and difficulties that lay ahead of them proved too much for a few of their number and, at Brewster's suggestion, they withdrew from the meeting.

During 1607-8 the Scrooby Separatists escaped to Holland, where at last were gathered more than one hundred men, women, and children.

The Hardships of the Voyage and Winter Test Their Endurance, page 55.

The *Mayflower*, only eighty-six feet long, carried 102 passengers besides its crew.

During the first winter, it was necessary to level all the graves immediately, so that the watchful Indians might not learn how pestilence was weakening the colony.

By spring only six boys and twenty men were left who were able to bear arms.

The crew of the *Mayflower*, who at first had laughed and jeered at the Pilgrims, were stricken with pestilence, and were so impressed with the kind care given them that they did not want to leave the Pilgrims behind in such a bleak country. In spite of the pleadings of Captain Christopher Jones and the crew, none of the Pilgrims went back when the *Mayflower* sailed in the spring.

Friendly Relations Are Established with the Indians, page 57.

Samoset, an Indian who had met Englishmen before, visited the colony asking for food and clothing. The kindly Pilgrims fed him and gave him a cloak. Miles Standish showed him the cannon on the hill and told him to tell his people about it, but the Pilgrims thought he would remember the lesson of love longer than he would remember the lesson of fear.



Captain Miles Standish informs Captain Jones of the Mayflower
that the Pilgrims intend to remain in Plymouth, despite the
harrowing experiences of the first winter.

(From "The Pilgrims," one of The Chronicles of America Photoplays)

The Pilgrims and Puritans in Massachusetts and
Connecticut.

GORDY, page 53

About 1,000 Puritans, Led by Winthrop, Sail for America, page 59.

AT Merrymount, near Charlestown, a lawless trading post flourished. Thomas Morton was the master of Merrymount. The Puritans decided to abolish the settlement because they did not approve of Morton's methods of getting the Indians drunk and cheating them in trade. Morton was captured and banished to England.

The Puritans feared that Morton might make trouble for them in England. Sir Richard Saltonstall, Governor Winthrop's best friend, returned to England and promised to do what he could for the Puritan cause.

In England, the King appointed a Commission to investigate the Puritan Charter. The Puritans had many bitter enemies in England. One of them was Sir Ferdinando Gorges, the founder of Maine. The Charter of the Puritans was the only thing that kept him from becoming governor-general of all New England, and he tried to prove that his claim to the land preceded that of the Puritans. Archbishop Laud,⁷ who presided over the Commission, was also a bitter enemy of the Puritans. He decided that the Puritans had violated the conditions of their Charter, and demanded its immediate surrender. The Puritans refused to give it up and expected that England would use force to secure it but before this could be done, conditions at home grew so serious that England was not able to send money, ships, or soldiers to America to secure the Charter.

Harry Vane, the son of a powerful nobleman in England, came over to the colony and so won the respect of the people that they elected him governor to succeed Winthrop. However, the people were not satisfied with his rule, principally because he became interested in the religious teachings of Anne Hutchinson, one of the dissenters in the colony. Consequently, at the next election, Winthrop was again elected governor. Soon after this, Vane returned to England.

Roger Williams, Driven from Massachusetts, Establishes Religious Freedom in Rhode Island, page 63.

The Puritan magistrates decided to drive Williams from the colony. Governor Winthrop was a good friend of Roger Williams, and when he heard of this plan, he sent a letter to Williams, warning him.

The first of these selections, it will be noted, contains two bits of quoted conversation.

Brewster comments: "Pomp and ritual and earthly show are not needed to worship him who was born in a stable—the simple book of His Word is the only test of religious truth." Young Bradford retorts to the Sheriff, "Why do you shake the stave of the law in the face of peaceable folk? It is the graceless blasphemers who interfere with us that you should rebuke." The quotations are taken from the photoplay. On account of their form, quite foreign to the usual historical text, such dramatic statements may be assumed to give to the control group a certain element of the photoplay. On this account it might be thought that they should not be included. In all such cases of doubt, however, as to what ought to be included and placed in the hands of the control group, the decision was in favor of including the doubtful material.

A copy of the following statement was given to each of the coöperating teachers:

To the Teachers Who are Taking Part in the Photoplay
Experiment:

THE aim of the experiment is to get precise knowledge as to the value of the films as a teaching device. Our success depends in a large measure upon the extent to which your sections get the same treatment from now to the end of the experiment. Prob-



Thomas Morton, appearing before Archbishop Laud and the Commission, prefers charges against the Puritans.

(From "The Puritans," one of The Chronicles of America Photoplays)

ably it will be better for you not to know what our tests cover so that you will not unconsciously shape your teaching to meet the tests. You can't help the fact that the same plan never works out in two sections in exactly the same way, but you *can* present the *same facts* with the *same emphasis* and use the *same methods* with the exception that in one section you use the films and in the other you do not. We hope you will plan to use the films as intelligently as you use the texts and other teaching devices. We will gladly show the films to you before you use them in the class, so that you may be prepared to use them to greater advantage. You will be supplied for each film with a list of the facts contained therein so that you may be sure to teach the same facts in both sections.

We shall undertake to compare your sections also as to the interest which they show. One way in which we shall attempt to do this is by providing mimeographed reading selections to be read or not by pupils just as they please, during twenty-five minutes set aside for the purpose. The day before this is done you should make this announcement: "We shall use only twenty-five minutes of tomorrow's period for our history lesson so bring with you some work you want to do or a book to read for the rest of the period."

The next day, when the time comes, announce in a casual manner, "Professor Knowlton has provided you with several copies of articles on,, etc. (Read the eight titles.) He is willing that you should read as many as you care to during the next twenty-five minutes, provided you take the test which comes at the end of each one. This isn't a part of your history lesson and gives no extra credit. There is no reason for reading them unless you want to."

This attempt to compare sections will prove worthless if every pupil makes use of this supplementary reading material, so you can see why it is advisable to make this announcement in a casual manner. We are hoping that the pupils will not read them because they think you or anyone else wants them to.

Reading material will be provided in like manner after each teaching unit. Many pupils will read them at first for the novelty, but as the experiment gets under way we shall probably find that the plan will furnish a worth-while basis of comparison. It is important

to make the announcement in the same way in both or all three of your classes.

The grouping of the pupils into homogeneous ability sections, all different, afforded a good opportunity to evaluate the photoplays in terms of the ability handicaps which they enabled the experimental group to overcome. On the other hand, this plan of homogeneous grouping made it necessary to match control and experimental groups as a whole, without matching within each teacher's influence. This method is inferior to matching by individuals, other things being equal.

The objection to the method of matching used lies in the possibility of a teacher being a better bright section teacher than she is a dull section teacher, or *vice versa*. The mental ages of four control sections taught by two of the teachers are such as to permit a determination of the extent to which that factor invalidates comparison in the case of these two teachers. D and N are bright and dull sections taught by one teacher; E and O are bright and dull sections taught by another teacher. The average of 300 measures of gain for sections D and O is $11.8 \pm .5$. The average of 297 measures for sections E and N is $11.2 \pm .5$. The difference is $.6 \pm .7$. Being less than its probable error, the difference is a statistically insignificant one. But suppose it does reflect a tendency, say, for the teacher of D and N to do relatively better work in the brighter section. There seems to be no reason for doubting that such differences in gains between groups supposedly alike would be minimized in a comparison of groups taught by six teachers instead of two. Even if there were a preponderant tendency for the six teachers to be better teachers of high-ability sections than of low, or a reverse tendency, the difference shown above would still be less in our comparisons of the whole group, for the experimental sections were

selected so as to permit the control group to be made up in three cases of higher-ability sections and in three cases of lower-ability sections.

A still more convincing test was made of the method of group matching used. Seventy-four pupils in the experimental group were paired with seventy-four pupils in the control group. In the case of each pair the mental age was equal and both pupils were taught by the same teacher. The comparison showed a slightly larger experimental group excess than was found in the main comparison.

For all comparisons the experimental group was so selected as to be slightly less able than the control group. In the experimental group selected, the average mental age was lower and the group included a smaller percentage of boys. This makes for some error in the results but gives greater certainty as to their nature. It was considered necessary to consider the proportionality of sexes because Vostrovsky,³ Eaton,⁴ and others have found evidence of boys reading more history than is read by girls, and Van Wagenen⁵ reports higher norms for boys. In view of these facts, boys may be expected to learn more history, other things being equal. In the groups used for our comparisons, the percentages of boys were in the three major comparisons: of control group, 48 per cent boys, of experimental group, 46; of control group, 48, and of experimental group, 47; of control group, 49 and of experimental group, 40.

³ Clara Vostrovsky, "A Study of Children's Tastes in Reading," *Pedagogical Seminary*, VI, 523-535.

⁴ H. Eaton, "What High School Pupils Like To Read," *Education*, XLIII, 204-209.

⁵ M. J. Van Wagenen, "Van Wagenen American History Scales" (revised edition), Manual of Directions. *Teachers College Bulletin*, 15th series, No. 4, Oct. 20, 1923. Teachers College, New York City.

The slight inequality between control and experimental groups secured on the basis of mental age and sex was confirmed by the yearly school marks in English and mathematics. These marks were two-thirds class marks and one-third test, and based upon the work done during the year of the experiment. The passing mark was 60. The experimental group average was 71 and the control group average was 75.

PART II

Results.

SECTION VIII

Comparison of the Gains Made by Experimental and Control Groups on the Knowlton Tests.

THE gains made by each section on each of the five tests are shown in Table IV. Under teachers 1 and 5 the experimental sections made outstanding gains, gaining consistently more than did the higher-ability control sections taught by the same teachers. In the other experimental sections, the contribution of the photoplay was clearly not of this magnitude.

A comparison of the sum of the gains for all the experimental sections, f, h, i, j, l, and m, and the sum of such gains for all of the control sections, A, B, C, D, E, G, K, N, and O, favors the experimental group for three tests out of five, and by a very small difference, on the five tests together. There are, however, three objections to this comparison. The first objection is, that for teachers 1, 4, and 5 there are two control sections to one experimental section, while for teachers 2, 3, and 6 this is not the case. This condition does not keep the teacher element constant. The second objection is, that the groups are not equal in ability. The control group median Mental Age exceeds the experimental group median by 1 year and 8 months. The groups need to be more nearly equal to permit precise determination of the experimental factor. The third is, that the initial score of the experimental group is in each case lower than that for the control group.

This fact discounts the excess gain of the experimental group because of the correlations¹ of $-.22$, $-.29$, $-.28$, $-.26$, and $-.36$ between the initial scores and the gains made on the different tests.

Table IV

Gains Made by Each Section on Each of the Five Knowlton Tests.

Teacher	Section	French and English					Totals
		<i>Pilgrims and Puritans</i>	<i>Life in the Colonies</i>	<i>Peter Stuy- vesant</i>	<i>Struggle</i>	<i>Revolution</i>	
1	A	10.8	3.1	18.1	17.0	22.2	71.2
2	B	16.1	3.7	6.5	8.2	14.4	48.9
3	C	16.6	5.6	6.1	10.3	14.4	53.0
4	D	18.2	5.5	12.5	14.3	21.8	72.3
5	E	14.4	2.8	11.2	14.7	20.0	63.1
1	f	13.3	7.2	18.4	17.3	22.9	79.1
6	G	14.0	5.8	11.0	9.8	17.3	57.9
3	h	11.0	2.1	9.6	4.5	7.0	34.2
4	i	13.5	3.9	8.0	8.7	17.6	51.7
5	j	24.6	16.6	23.6	16.3	34.2	115.3
1	K	11.1	6.4	14.3	12.8	18.0	62.6
2	l	10.7	5.9	4.9	5.3	11.8	38.6
6	m	7.9	3.9	3.0	4.6	10.9	30.3
4	N	14.2	2.1	9.3	8.1	13.6	47.3
5	O	11.5	3.0	8.2	9.1	11.5	43.3

Leaving sections A, D, and E out of the control group meets the first objection and partially reduces the differences in Mental Age and in initial score. In the resulting control group three sections are of higher ability than the corresponding experimental section and three are lower. But the B-C-G-K-N-O combination still exceeds the f-h-i-j-l-m group in ability. Leaving out B and l (the pair taught by the same teacher and differing most in Mental Age) meets the three objections fairly well. The facts for the resulting con-

¹ Computed on the nine control sections only, to free the result from the experimental factor.

trol and experimental groups, C-G-K-N-O and f-h-i-j-m are shown in Table V. Even though the differences in the groups on the separate tests handicap the experimental group more than they favor it, the gains are all in its favor. On the whole, a small difference in Mental Age handicapped the experimental group and a small difference in initial score favored it.

Table V

Comparison of Gains on the Separate Knowlton Tests.

(In the column "Differences in the group" differences are called — when they handicap the experimental group, and + when they favor it.)

		<i>Differences</i>		
		<i>C-G-K-N-O</i>	<i>f-h-i-j-m</i>	<i>in group in gain</i>
Mental Age	Md. in mos.	137	134	—3
	N.	176	170	
"Pilgrims and Puritans" Test	Av. initial	32.8	33.6	— .8
	Av. gain	13.5	13.9	+ .4
	N.	147	145	
"Life in the Colonies" Test	Av. initial	56.0	55.9	+ .1
	Av. gain	4.7	6.7	+2.0
	N.	155	147	
"Peter Stuyvesant" Test	Av. initial	26.9	26.7	— .2
	Av. gain	9.7	12.7	+3.0
	N.	159	159	
"French and English Struggle" Test	Av. initial	23.1	23.3	— .2
	Av. gain	10.1	10.5	+ .4
	N.	159	152	
"Revolution" Test	Av. initial	23.5	22.9	+ .6
	Av. gain	15.1	18.9	+3.8
	N.	159	158	
All Tests	Av. initial	32.3	32.2	+ .1
	Av. gain	10.6 ± .2	12.6 ± .3	+2.0 ± .3
	No. of measurements	779	761	

(Md. = median

Av. = average

N. = number of cases)

As a check on the comparisons of Table V a comparison was made of the gains on the five tests combined. In this comparison it was not necessary to consider initial score, as the correlation between combined initial scores and combined gains is $+.02 \pm .05$. Sections B and I were left in their respective groups in this comparison so that the result would be more fully representative, and the groups were made more nearly equal in mental age as described below.

The smallest number of pupils in any section to take all tests was 17, so all sections were reduced to 17 in order to equalize the groups and each teacher's contribution (in pupils) to the whole group. The cases omitted were those which contributed most toward a reduction of the ability differences between the experimental and control groups, namely those with highest Mental and Educational Ages in the control sections and those with the lowest ones in the experimental sections. The groups are now composed of 6 sections of 17 pupils each. Each of the 6 teachers taught 17 of the 102 control pupils and 17 of the 102 experimental pupils.

The average intelligence test scores and average gains are shown in Table VI.

Table VI

Comparison of Combined Knowlton Test Gains.

		<i>M.A. in mos.</i>	<i>E.A. in mos.</i>	<i>I.Q.</i>	<i>E.Q.</i>	<i>Gain</i>
Control	17 pupils from each of sections B-C-G-K-N-O	139.3	145.4	99.3	101.8	52.5 ± 1.6
Experi- mental	17 pupils from each of sections f-h-i-j-l-m	133.5	142.2	96.3	101.8	60.8 ± 2.5
Differences		<u>-5.8</u>	<u>-3.2</u>	<u>-3.0</u>	<u>0</u>	<u>$+8.3 \pm 3.1$</u>

The 8.3 difference in gain, a 16 per cent excess over the control gain, is a minimum statement of the result of the experiment, for it should be noted that the experimental group made this greater gain in spite of a handicap of 5.8 months of Mental Age, 3.2 months of Educational Age, and 3 points of Intelligence Quotient.

Table VII

The Effect of Reductions of Differences in Mental Age, Educational Age, Intelligence Quotient, and Educational Quotient upon Differences in Gains.

<i>Groups compared</i>	<i>Experimental Group Handicaps</i>				<i>Excess experimental group gain</i>
	<i>Diff. in M.A. in mos.</i>	<i>Diff. in E.A. in mos.</i>	<i>Diff. in I.Q.</i>	<i>Diff. in E.Q.</i>	
Control of 132 pupils					
Experimental of 129 pupils	11.9	9.1	8.3	6.3	4.9
Control of 102 pupils					
Experimental of 102 pupils	5.8	3.2	3.0	0	8.3
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
Reductions of handicaps	6.1	5.9	5.3	6.3	3.4
					Increase effected

If the 5.8 months mental age handicap were reduced to 0, the other three differences would favor the experimental group. This may be taken as a condition for a maximum representation of the excess gain of the experimental group, corresponding to the facts of Table VI as a minimum. As a basis for estimating this maximum it has been shown in Table VII to what extent reductions in handicaps increased the excess gain made by the experimental group. Assuming that further reduction would affect the differences in gain in proportion to the reduction shown in Table VII, the elimination of the remaining handicap of 5.8 months of Mental Age would increase the experimental group's excess by 5.8/6.1 of

3.4 or by 3.2. This amount added to 8.3 gives 11.5, an excess of 22 per cent. The average of these minimum and maximum interpretations of Table VI is a difference in gain of 9.9 points or a difference of 19 per cent.

This result is in very close agreement with the 2.0 excess shown in Table V, because this 2.0 excess was the average difference for the tests taken separately, and needs to be multiplied by 5, the number of tests, to permit comparison with the difference in total gains. One shows an excess gain on the part of the experimental group of 9.9, the other shows one of 10.0. Both comparisons show that the experimental group made a 19 per cent greater gain.

Table VIII

Comparison of Gains on the Knowlton Tests for Individually Matched Groups.

<i>Teacher Group</i>	<i>No. of Measurements</i>	<i>Control Group Av. Gain</i>	<i>Experimental Group Av. Gain</i>	<i>Per cent E Gain C Gain</i>
1	76	14.2	15.2	107
2	16	3.8	7.0	184
3	30	7.2	9.3	129
4	68	10.5	11.0	105
5	62	10.0	21.2	212
6	22	11.0	8.2	75
Averages with equal weighting		9.5	12.0	126

To check the method of matching used, a third comparison was made using individual matching. Seventy-four pupils in the experimental group were matched with seventy-four in the control group. The matching was as close as the reliability of a mental age will permit. The mental ages of the experimental pupils were more like the mental ages of

the control pupils with whom they were matched than they would be like their own on another test.

For these pairs of pupils, only complete pairs of measurements were used. That is, if an experimental pupil was absent from a test, then the record from that test made by his mate in the control group was discarded. The results are as in Table VIII for the six teacher groups. The number of measurements is not adequate for precise determination, i.e., the sampling error is large for each teacher group. But judging from Tables IV and VIII, the net contribution of the photoplays varied widely from teacher to teacher.

This comparison of individually matched groups indicates that 19 per cent is a conservative measure of the photoplay's contribution. The 19 per cent is based upon a difference which in Table V is 6.7 times its probable error and in Table VI is at least 2.7 times its probable error.² This means that the chances are not more than 3 in 100 that it is not a true difference.

² P.E. of a difference between two means has been computed as equal to

$$\sqrt{P.E.^2_{Mn_I} + P.E.^2_{Mn_{II}}}$$

SECTION IX

Evaluation of the Excess Experimental Group Gain on the Knowlton Tests in Terms of the Intellect It Would Have Required To Achieve It.

IN the previous section, the experimental group was compared with a control group like it in all respects except the experimental factor. In this section the experimental group will be compared with a control group of greater ability. If, among the control sections a group may be found making the same gain as that made by the experimental group, then it may be inferred that the contribution of the photoplays was equivalent to the difference in ability between the control and experimental groups. It seems quite as permissible to infer this as to conclude in the previous section that the greater gain made by the experimental group is a measure of the contribution of the photoplay. The only new question involved is whether the intelligence test scores are valid measures of ability to learn. The correlations of $+.62$ between mental ages and the total initial scores and of $+.26$ between mental ages and total gains answer that question. They show that the pupils learned or made gains in a somewhat direct proportion to their mental ages.

The problem is then to find an experimental group, and a control group of greater ability taught by the same teachers and making the same gain. Sections A-B-C-D-E-G form a satisfactory control group in so far as teachers and ability of pupils are concerned. It would be a fortunate accident if the gains were equal. The facts are as in Table IX.

Table IX

Initial Scores and Gains Made by the Experimental Group and the Higher-Ability Control Group.

<i>Tests</i>	<i>Experimental Group f-h-i-j-l-m</i>		<i>Higher-Control Group A-B-C-D-E-G</i>	
	<i>Av. Initial Score</i>	<i>Av. Gain</i>	<i>Av. Initial Score</i>	<i>Av. Gain</i>
Pilgrims and Puritans	32.8	13.3	37.7	15.0
Life in the Colonies	55.3	6.6	60.3	4.4
Peter Stuyvesant	26.3	11.4	31.8	10.8
French and English Struggle	22.6	9.6	25.5	12.3
Revolution	22.8	17.8	25.3	18.3
Averages for all tests	32.0	11.7	36.1	12.2

The gains of the experimental group are not on the average equal to those of the control group. If they were, as in the case of the "Life in the Colonies" and "Peter Stuyvesant" tests, differences in initial scores would complicate comparison. Total scores and total gains will therefore be used as in the previous section to facilitate comparison.

Because the A-B-C-D-E-G gains shown in Table IX were larger than the f-h-i-j-l-m gains, A was replaced by K, the less intelligent control section taught by the same teacher. The gain of the resulting group, B-C-D-E-G-K was found to be near enough equal to the gain of the experimental group. The control sections were then all reduced in size to 17 pupils each, to correspond to the experimental group of 102, described in the previous section. When a pupil needed to be omitted from a section, that one was omitted whose Mental and Educational Ages were highest. The 102 remaining pupils made an average total gain of 60.8. This gain equals, to the nearest tenth, the gain of the experimental group of 102. The average intelligence test scores of the

two groups are compared in Table X to show the differences or handicaps which the experimental group overcame, presumably through the use of the photoplays.

Table X

The Mental Age, Educational Age, Intelligence Quotient and Educational Quotient Handicaps Overcome by the Experimental Group in Equaling the Gain Made by the Control Group on the Five Knowlton Tests Combined.

<i>Scores compared</i>	<i>Control Group Averages N = 102</i>	<i>Experimental Group Averages N = 102</i>	<i>Differences or Handicaps Overcome</i>
Total Gain	60.8	60.8	
M.A. (in mos.)	149.1 \pm 1.2	133.5 \pm 1.0	15.6 \pm 1.6
E.A. (in mos.)	156.6 \pm 1.3	142.2 \pm .9	14.4 \pm 1.6
I.Q.	108.4 \pm 1.1	96.3 \pm 1.0	12.1 \pm 1.5
E.Q.	113.1 \pm 1.1	101.8 \pm .8	11.3 \pm 1.4

The size of these handicaps gives more meaning to the greater experimental group gain which was shown in the preceding section. Instead of saying merely that the experimental group made a 19 per cent greater gain, it may now be said that in doing so, they learned as if they were 16 months more mentally mature, or 14 months more advanced in school; or that they learned as if they were brighter by 12 points of Intelligence Quotient, or by 11 points of Educational Quotient. This comparison of quotients is in either case equivalent to saying that the experimental group, with a degree of brightness which places them in the middle third of a group of unselected children, nevertheless learned as much as if they were in the upper third. Comparison of the averages of the intelligence and educational quotients is equivalent to saying

that with second quartile ability, the experimental group gained as if they had had fourth quartile ability. The amount by which the experimental group exceeded the gain of the control group is therefore an appreciable one.

SECTION X

Gains Made by the Experimental and Control Groups on the Van Wagenen Scale.

MAY the reported enrichment be interpreted as an enrichment of good teaching as it is *usually* measured? The Van Wagenen Information Scale C-2 was given at the beginning and end of the experiment to nine of the fifteen sections. The nine were fairly representative of the whole grade in that, of the six omitted sections, two were bright, two average, and two dull. The nine sections made an average gain of 14.4 points as shown in Table XI. Allowing for the experimental factor and for the practice effect of one point, this improvement made in six months is equal to the improvement normally made in both the sixth and seventh grades in the Minnesota cities from which the norms were obtained. The period covered by the experiment was therefore one of unusual progress as measured by this standardized scale.

Another question which the use of the Van Wagenen Scale was designed to answer is not so easily answered, "Was the enrichment made at the expense of progress as measured on this scale?"

The section j gain exceeds that of section E as it did in all Knowlton test gains. Lacking a measure of the A section gain, we cannot tell whether section f would have exceeded A or not.

In Table XII, f-i-j-l as a group is compared with B-E-K-N, the control group nearest like it in ability. Since the experimental group is handicapped by 9 months of Mental

Age and favored in initial score by only .9 of a point, the comparison indicates a greater gain on the part of the experimental group.

Table XI

Gains Made by Each Section on the Van Wagenen American History Scales, Information Scale C-2.

<i>Teacher</i>	<i>Section</i>	<i>Gain</i>
2	B	13.8
4	D	12.6
5	E	18.0
1	f	16.1
4	i	9.3
5	j	25.4
1	K	15.4
2	l	8.3
4	N	10.9
	Average	14.4

Table XII

Comparison of Experimental Group f-i-j-l and Control Group B-E-K-N and of the Gains Made by These Groups on the Van Wagenen Scale C-2.

	<i>Control Group B-E-K-N N = 119</i>	<i>Experimental Group f-i-j-l N = 121</i>	<i>Differences in group in gain (— is a handicap, + is an advantage)</i>	
Md.M.A. in mos.	141	132	—9.0	
Initial score	55.1	54.2	+0.9	
Gain	14.5	14.8		+ .3

At its face value the excess gain of the experimental group is one of 2 per cent. It might be much higher with equated groups. But the exact relation for these groups of four sections each, if found, would not be comparable to the 19 per cent found for all experimental sections. The only

way in which a per cent comparable to the 19 per cent Knowlton tests excess can be obtained is by proportion. It is necessary therefore to compare Van Wagenen scale and Knowlton test results for small groups and to assume that the relation found would be true of the whole groups.

For comparison with the 2 per cent shown above, the corresponding per cent on the total Knowlton test gains was determined from the data in Table IV. The f-i-j-l gain is 71.2 and the B-E-K-N gain is 55.4. The excess is one of 29 per cent. Judging from a comparison of these percentages, the fact that they had seen the photoplays helped the pupils to gain on the Van Wagenen scale about 2/29 of the extent to which it helped them to learn what was measured by the Knowlton tests.

Omitting sections B and l leaves an experimental group, f-i-j, with an average Mental Age only three months higher than that of the control group, E-K-N. Their gains are respectively 16.9 and 14.8. The excess in this case is 12 per cent. The corresponding Knowlton test excess is 42 per cent; the relation between the two percentages is 2/7.

A more exact comparison was made using experimental and control groups of 44 pupils each. These 44 are all of the experimental pupils who could be matched closely with control pupils in initial Van Wagenen scores, and who took both initial and final of all the Knowlton tests. The matching was done to insure equality of initial scores. It was necessary because of a negative correlation of $-.33$ between initial score and gain. Matching initial scores was not necessary in comparing total Knowlton test gains.

On the Knowlton tests, the average experimental gain is 65.7 to the control's 56.6. The excess of 9.1 points is 16 per cent. On the Van Wagenen scale the average experimental

gain is 15.8 to the control's 15.4. The excess of .4 is 3 per cent. In this case the experimental group's excess Van Wagenen scale gain is $3/16$ of its excess on the Knowlton tests.

The smallness of these ratios of excess gain to control group gain cannot be attributed to the smallness of the gain made on the Van Wagenen scale. The gain made by the nine sections tested was a large one, as already pointed out in this section. To take $3/16$ as a fair determination of the relation between the contributions of the photoplays as measured by the two tests, is to assume the proportionality of gains on different kinds of tests. Probably this is a safe assumption. The ratio of excess gain to control-group gain is probably to a very large extent independent of the size of the gains. But without making this assumption, it may be shown that the advantage afforded by the photoplays toward learning the Van Wagenen test material was less than it was toward learning the Knowlton test material. Of the 44 pairs of pupils last compared, 10 were from sections F and K. Of these 10 pairs, the experimental pupils in section F were the more intelligent. Omitting these cases from the comparison, leaves groups of 34 each with an increased Mental Age handicap for the experimental group. This handicap was overcome in making Knowlton test gains but not overcome as measured by the Van Wagenen scale. The gains were: on the Knowlton tests, Experimental, 64.1; Control, 55.4; and on the Van Wagenen scale, Experimental, 14.9; and Control, 16.2.

Three-sixteenths is in close agreement with the average of the first two determinations of this ratio, i.e., of $2/7$ and of $2/29$. In lieu of a Probable Error, $2/7$ and $2/29$ may be taken as limiting values, and all these ratios used in estimating the advantage of the photoplays to the six experi-

mental sections for whom the 19 per cent advantage was representative. Two twenty-ninths, $3/16$, and $2/7$ of 19 per cent are respectively 1, 4, and 5 per cent. Taking 4 as the best estimate; thinking of the Knowlton tests as measuring progress in an enriched course of study; and thinking of the Van Wagenen scale as measuring progress in the learning of the bare facts of history, it may be said that the photoplays contributed five times as much to the former as to the latter form of progress.

In itself, an excess of 4 per cent is not of great importance. It means that while the control group does a year's work of 40 weeks, the experimental group does 41.6 weeks' work. Or it means that with the aid of the photoplays, a year's work of 40 weeks is done in 38.5 weeks.

It is of importance to note, however, that the enrichment reported in Section VIII and evaluated in Section IX was not achieved at the expense of "normal" progress. On the contrary, it was accompanied by a slight increase in "normal" progress, and this increase was effected in spite of the fact that the progress of the control group which served as a basis of comparison was itself far above "normal."

SECTION XI

The Effect of the Photoplays upon Retention.

RETENTION was measured over intervals varying from approximately three to seven months as may be seen from the dates of testing shown in Table XIII.

Corresponding to the comparison of gains in Table V, Table XIV shows the number of points gained, lost, and retained by groups C-G-K-N-O and f-h-i-j-m. The groups compared in Table XIV are the same as those compared in Table V, subject only to a 13 per cent loss due to the changes in a group from one year to the next.

The experimental group learned more, forgot more, and remembered more. It is the usual finding for those who learn more to remember more even though they forget more. De Weerd¹, for instance, found this to be true of the gains, losses, and retentions in seven functions. Brooks and Bassett,² measuring retention of American History in the Junior High School, found that "the pupils who know most at the end of the semester tend to forget a little more than those who know less, but they still know the most."

Differences in overlearning probably explain this. The things that both the bright and the dull learn are those which are much talked about or drilled on. Some of the

¹ E. H. de Weerd, "The Permanence of Improvement of Fifth-Grade School Children in Certain Mental Functions," *Journal of Educational Research*, XVI (Sept., 1927), 127-131.

² F. D. Brooks and S. J. Bassett, "The Retention of American History in the Junior High School," *Journal of Educational Research*, XVIII (Oct., 1928), 195-202.

things which only the bright learn are learned from occasional remarks, casual explanations, etc., which are adequate to produce their effect upon immediate recall, but not after a long interval. Overlearning is necessary for retention.

In the same way, the experimental group may have learned some things from seeing the photoplays which lasted only long enough to register on the tests taken immediately after the period of instruction. There was no re-view of the photoplays, either in toto or with still pictures. The advantages of overlearning and of review were therefore in favor of retention by the control group.

Table XIII

Dates of Testing.

<i>Test</i>	<i>Before Instruction</i>	<i>After Instruction</i>	<i>Fall Retest</i>
Pilgrims and Puritans	Jan. 31	Feb. 20	Sept. 7
Life in the Colonies	Mar. 6	Mar. 19	Sept. 7
Peter Stuyvesant	Mar. 21	Apr. 3	Sept. 10
French and English	Apr. 16	May 9	Sept. 10
Revolution	May 14	June 13	Sept. 10

Table XIV

Comparison of Points Gained, Lost, and Retained on the Separate Tests.

<i>Tests</i>	<i>Gained</i>		<i>Lost</i>		<i>Retained</i>	
	<i>C group</i>	<i>E group</i>	<i>C group</i>	<i>E group</i>	<i>C group</i>	<i>E group</i>
Pilgrims and Puritans	13.5	14.1	3.8	5.2	9.7	8.9
Life in the Colonies	4.6	7.0	2.5	4.9	2.1	2.1
Peter Stuyvesant	10.1	12.6	4.9	6.7	5.2	5.9
French and English	10.1	10.6	6.3	6.4	3.8	4.2
Revolution	15.3	19.1	9.8	12.1	5.5	7.0
Total	53.6	63.4	27.3	35.3	26.3	28.1

The Revolution unit is the only unit which permits a fair comparison of the two methods as to their value for retention (amount retained divided by amount learned). Following this unit of teaching, the element of review was held constant, for this unit was followed immediately by the summer vacation, and the retest was given before teaching began in the fall.

For this unit the amount retained by the experimental group was in absolute units greater than the amount retained by the control group, and in per cent of learning retained, either equal to or greater than the per cent of learning retained by the control group. The difference in retained gain on this test is $1.5 \pm .9$. The chances are 87 in 100 that the difference is a true difference. On this test the experimental group learned 25 per cent more than the control group did and retained 27 per cent more than the control group retained.

Such statements cannot be made of each of the units measured nor of the combined results. Of the total learning the control group retained 49 per cent, the experimental group but 44. And where $\frac{\text{E gain} - \text{C gain}}{\text{C gain}} = 18 \text{ per cent,}$

the corresponding per cent for retention is 7. However, conclusions as to the contribution of the photoplays to retention should not be based upon these figures without further analysis, for reasons stated in the following paragraphs.

For the first half of the experiment the control and experimental group gains were 28.2 and 33.7, and for the second half, the gains were 25.4 and 29.7, respectively. The corresponding retentions were 17.0 and 16.9 for the first half, and 9.3 and 11.2 for the second half. This means that of what

they learned early, the control group remembered 60 per cent, and the experimental group remembered 50 per cent, but of what they learned late in the term the control group remembered 37 per cent, and the experimental group 38 per cent. In other words, both experimental and control groups remembered more from the early teaching than from the late.

This result in no sense contradicts, nor is it contradicted by, the usual curve of forgetting. To be sure, it sounds contradictory to say that more is remembered over the longer interval. But the intervals differ in other respects than in time. They differ in opportunity for review, planned and incidental. The situation should be described as follows: of two measurements of retention, one over a period of seven months with opportunity for review during the first four months, and one over a period of three months with no opportunity for review, the first is the greater. In fact, the results secured in this experiment are almost in exact order for the five units, as shown in columns 1 and 2 of Table XV.

Table XV

Per Cent of Gain Retained for Each Test, and Related Factors.

<i>Tests</i>	<i>Control</i>	<i>Experimental</i>	<i>Per cent</i>	<i>Per cent</i>
	<i>Group</i>	<i>Group</i>	<i>of ques-</i>	<i>E gain-C gain</i>
	<i>per cent R/G</i>	<i>per cent R/G</i>	<i>tions which</i>	<i>C gain</i>
			<i>are time</i>	
			<i>questions</i>	
Pilgrims and Puritans	72	63	17	8
Life in the Colonies	46	30	30	48
Peter Stuyvesant	51	47	9	28
French and English	38	40	7	5
Revolution	36	37	35	25

Table XVI

*Per Cent of Gain Retained According to the Kind of Knowledge.
Taken from Data in Table XIX in the Section on Analysis.*

	<i>Control Group</i>	<i>Experimental Group</i>
Time	46	40
Place	38	37
Person	67	66
Relation	68	72
Combined	50	49

Worcester⁸ found results like this when he measured the permanence of learning in algebra. He used Forms A-I, A-II, and B-I of the Douglas algebra tests, on February 9, March 29, and May 17 respectively, and retested with the same tests on December 20 and 21 of the same year. A-I and A-II measure command of the processes taught early in the term and B-I measures command of those taught late in the term. Scores from his first testing are measures of gain and scores from his December testing are measures of retention, since zero scores, or practically zero scores, might have been expected at the beginning of the teaching of algebra.

The amount retained was over 80 per cent of the amount learned in the case of the A tests, and was but 35 per cent on the B test. "It seems, then, that the amount of forgetting on this test was immensely more than on the others, even though the time between the tests was less."

Promising extensive investigation along the same line, Worcester notes "that other studies in algebra, as well as those in plane geometry, home economics, and biology are showing the same trends as the one here reported."

Differences in overlearning and differences in opportunity for review may well explain the differences in per

⁸ D. A. Worcester, "The Permanence of Learning in High School Subjects—Algebra," *Journal Educational Psychology*, XIX (May, 1928), 343-345.

cent remembered of the early and late teaching. They may also explain the fact that the experimental group remembered as much of the late teaching as the control group did, but less of the early teaching.

There is, however, another factor to be considered. When the tests were regrouped into four tests, one of time knowledge, one of place, one of persons, and one of interrelationship, the per cent of learning which is retained is for the control group on the time test, 46 per cent, for the experimental group, 40 per cent; on the other three tests combined, it is for the control group 50 per cent, for the experimental group, 51 per cent. The per cents for the four kinds of knowledge are shown in Table XVI.

It has been indicated how a decreased opportunity for review could explain the gradually better showing of the experimental group. But when comparison is made of the per cent of each test which is composed of time questions with the per cent R/G for the control and experimental group as listed in Table XV, it can be readily seen that variation in the per cent of time questions may be responsible for the variation in the showing made by the experimental group. The experimental group made an especially poor showing on the retention of "Life in the Colonies" material, and it will be noted that a larger per cent of this material was time material.

On the other hand, this especially poor showing is explainable on the basis of possible differences in overlearning. In the fourth column of the same table (Table XV) are the per cents which indicate the contribution of the photoplay. Alongside of the especially poor showing in retention is the largest contribution. In other words, from that unit the greatest relative loss might be expected.

One of these explanations need not be accepted to the exclusion of the other. Both may be responsible for the results found. In any event, what was true of a part of the test material has been unduly reflected in the per cent which the Experimental minus the Control Retention is of the Control Retention. For tests 2 to 5, the per cent computed in the same fashion is 16 per cent instead of the 7 per cent obtained for tests 1 to 5. A determination for another purpose (described in the section on analysis) shows a 17 per cent $\frac{E - C \text{ gain}}{C \text{ gain}}$ and a 16 per cent $\frac{E - C \text{ Retention}}{C \text{ Retention}}$. Twelve per cent, an average of the two determinations, is a more representative measure of the contribution of the photoplays to retention in general.

It is from this second determination, to be described later, that the per cents of gain retained which are listed in Table XVI were computed. The experimental group per cent R/G is seen to be less than, equal to, or greater than the control group per cent R/G, according to the kind of knowledge being measured. The forgetting of when conditions existed, or when events happened, or in what order they happened, was evidently the chief cause of the inferior showing of the experimental group.

Summarizing; retention was measured in two ways, first as gain minus loss, and second, as the per cent which that value is of the gain. By the first method, the experimental group retained more, though they also lost more. The experimental group retained approximately 12 per cent more knowledge than was retained by the control group. By the second method, of the amount learned during the first half of the experiment, the percentage retained by the experi-

mental group was less, of that learned during the second half of the experiment it was as much as or more than that of the control group. Of the learning during the first half of the experiment, the control group retained 60 per cent, the experimental group 50 per cent; of the learning of the second half of the experiment, the control group retained 36 per cent, the experimental group 37 per cent. Therefore, it may be said of the experimental and control groups, that of what they learned, they remembered practically the same fractional part, when opportunity for review was equal. In the experimental group there was no provision for re-view either of a whole photoplay or of any part of one. When, in the control group, the normal amount of review took place, the experimental group retained a smaller fractional part of what it learned. From the more restricted groups used for the analysis of the gain described in a later section, measures of retention indicate that this smaller fractional part was probably due almost solely to the forgetting of knowledge of time.

It should be noted here, that no evidence has been presented which would justify one in thinking that the outstanding value of the photoplay lies in its contribution to retention. Teachers need to realize that pupils do not see everything in a picture, and that single impressions will not last. The net result, for a given pupil, is of necessity, fragmentary, as is the case in all teaching, and needs to be completed and reviewed and re-viewed. There is no magic in pictures transcending the laws of learning.

SECTION XII

Comparison of Experimental and Control Groups as to Participation in Classroom Discussion, Expression of Interest, and Voluntary Reading.

THESE measures of pupil participation were obtained in only three of the six experimental sections, f, j, and l. The control group with which this experimental group is compared is composed of sections B, K, and O taught by the same teachers. The average mental age of the control group is six months higher than that of the experimental group.

The results are shown in Table XVII. Pupil participations which followed a teacher's question, stated or implied, were designated by "R"s. Those which were not so initiated were recorded as "V"s since they were more voluntary and probably showed more interest. When the participation consisted of asking a question it was recorded as an "A," and if it contributed to the discussion, some information obtained outside the classroom from reading or other sources, it was recorded as a "C."

The number of pupil participations averaged 77.4 per section per period for the control group and 85.4 for the experimental group. This difference, 8.0 ± 2.2 , being 3.6 times its probable error, is 99 chances out of 100, a true difference. The differences in the case of the R's, V's, C's, and A's have larger errors, but more dependence may be placed in the "R" and "V" combined differences than the probable error justifies because of the fact that they are found in the same direction in four of the five instructional units.

Table XVII

Comparison of Experimental and Control Groups as to the Number of Pupil Participations per Section per Period, for Each Instructional Unit and for the Five Units Combined.

		Instructional Units.					
		I	II	III	IV	V	Combined
C group	R	48	50	33	44	42	43.9
	V	19	31	39	29	28	28.3
	A	6	3	4	4	2	4.0
	C	1	2	2	1	1	1.2
Totals		—	—	—	—	—	—
		74	86	78	78	73	77.4
E group	R	53	50	39	46	46	47.2
	V	22	36	38	32	37	33.0
	A	7	3	2	3	5	4.3
	C	1	1	1	2	1	.9
Totals		—	—	—	—	—	—
		83	90	80	83	89	85.4
Group Differences		R 3.3 ± 2.0					
		V 4.7 ± 2.0					
		A $.3 \pm .5$					
		C $.3 \pm .1$					
Totals		8.0 ± 2.2					

A greater total number of pupil participations may mean either more participations per pupil, or more pupils participating, or both. In the present case it is both. In the control group 62 per cent were responsible for the "R"s but in the experimental group 65 per cent recited. The difference expressed in the percentages is $2\frac{1}{2}$ times its probable error, and is found 5 times out of 5. For those pupils actually reciting as defined for "R," the average number of "R"s per pupil per day is 2.0 for the control group and 2.1 for the experimental group. It is safe to say that the difference would not be significant in terms of its probable error but the

experimental group average exceeded the control group average in four of the five units in which it was compared.

The volunteered participations were made by 37 per cent of the control group and 41 per cent of the experimental group. The difference expressed in these percentages is 2.6 times its probable error. The "V"s per pupil per day average 2.2 for the control group and 2.3 for the experimental group, and the difference favored the experimental group in four of the five comparisons.

Sixty-six per cent of the control group asked questions, and 69 per cent of the experimental group. For the whole period of observation (40 days) the average number of questions asked, among those asking them, was for the control group 6.9 and for the experimental 7.1.

Thirty-four per cent of the control group contributed as defined for "C," and 39 per cent of the experimental group. In the comparison of average number of "C"s per pupil for the whole period, for those pupils actually contributing, we find the only comparison of totals favoring the control group. The average for the control group is 4.0 and the average for the experimental group is 2.6.

On those occasions when hands were raised as a result of a teacher's question, the number of hands raised in the control group was on the average 8.4. In the experimental group the average was 9.1. The difference $.7 \pm .1$ though small is seven times its probable error. When hands were raised on other occasions, i.e., not directly as a result of a teacher's question, the control group average was 5.3 and the experimental group average was 6.1. The difference is eight times its probable error. For both of these measurements the difference favored the experimental group in all five of the units of the experiment.

For each of the measures reported, the precaution was taken of finding out what effect a difference in ability had upon it. Without an exception it was found that of two control groups taught by the same teachers the more able or brighter group made the higher score. This finding is supported by McCullough¹ in that he found that bright children recite more often. The excess scores made by the experimental group were therefore made not because of a six months lower mental age but in spite of it.

The comparisons reported do not include records of the extent of pupil participation on the days the photoplays were shown. The ten or fifteen minutes following the showing was, however, a period of keen interest and active questioning. On the other hand, the records were by no means confined to days immediately following showings. To have so confined them would have made quite a different report, for there was a sharp lowering of the extent to which the photoplays contributed to pupil participation as the interval increased. The contribution dropped from 25 per cent on the first day following a showing to 16 per cent on the second day, but even during the fourth week after a showing there was still some evidence of the influence of the photoplays. During the eight days of observation from one to two weeks after a showing, the experimental group participations were 106 per cent of those of the control group. During the five days of observation from two to four weeks after a showing the number of experimental group participations was 105 per cent of the number of control group participations.

It should not be lost sight of that some of the differences reported are of little significance in the classroom. To have

¹ A. N. McCullough, "The Opportunities of Pupils to Participate in the Teacher's Time," *Elementary School Journal*, XXVIII (Mar., 1928), 538-543.

nine pupils ready to answer instead of eight is the least noticeable difference a teacher could have, and the same may be said of having six pupils wanting to say something instead of having five.

On the other hand, the differences are appreciable when combined; that is, if all four kinds of pupil participation are combined and the differences for a 40-week school year are computed, the average number of participations per pupil in the experimental sections is 484, while in the control sections it is only 438. This comparison shows for a 35-pupil experimental section 1,610 more pupil participations per year than for a control section. This is a 10 per cent excess and is equivalent to adding twenty extra days to a school year in so far as pupil participation is concerned.

The volunteered participations which were recorded separately as evidence of more interest than the rest, constituted only about one-third of the total number of participations. But for a year, the averages indicate 940 more of these volunteered remarks in an experimental section than in a control section. This is a 17 per cent excess and is equivalent to adding thirty-four extra days to a school year so far as voluntary pupil participation in classroom discussion is concerned.

Some of the differences found are of very little significance, but so far as their direction is concerned they warrant the following statements. In the experimental group,

- (a) more recitations were made at the request of the teacher;
- (b) a larger percentage of the class recited;
- (c) those reciting, did so more often;
- (d) on these occasions more hands were raised;
- (e) more remarks were volunteered by the pupils not directly as a result of a teacher's question, i.e., upon

- those occasions when their own desire to participate more evidently prompted them;
- (f) a larger percentage of the group so volunteered;
 - (g) those volunteering did so more often;
 - (h) on these occasions more hands were raised for permission to participate;
 - (i) more questions were asked;
 - (j) a larger percentage of the group asked questions;
 - (k) those who asked questions did so more often;
 - (l) fewer contributions came in from outside;
 - (m) a larger percentage of the group made such contributions;
 - (n) those contributing, did so less often.

As indicated, some of these differences are appreciable and some are insignificant. Together, they constitute an appreciable and statistically significant difference between the experimental and control groups in the amount of pupil participation in classroom discussion.

The average ranking of history among six other subjects which the pupils were studying was approximately equal for the experimental and control groups. The difference in group averages of rankings showed a greater liking for history on the part of the experimental group by a slight difference ($.46 \pm .23$), but it was due to a tendency on the part of the duller pupils to rank history higher among the six other subjects ranked. The difference in average rank between control and experimental groups was reversed in the case of an experimental group superior to the control group in ability.

To one who has observed these classes, this result is not so surprising as it might seem. The photoplays were shown in the classroom, in a school rather than in a "movie" atmosphere. There was no more exuberance among the pupils see-

ing the pictures than among control pupils during an enthusiastic recitation period. In fact, it is doubtful that the pupils enjoyed seeing the photoplays any more than they enjoyed intensive periods of class discussion. And there were many such periods, probably more enthusiastically participated in because of the presence of an observer. Perhaps photoplays can cause pupils to enjoy their history more, only when it is otherwise not enjoyable. Certainly that was not the case in this experiment. The pupils in the control sections expressed themselves in their rankings as liking history almost as much as they liked physical training, which was the best liked subject. At any rate, there is no evidence in the rankings that the photoplays caused pupils to like history better.

The measures of voluntary reading are of three kinds: the school librarian's record of the reading of history during library periods, lists of the term's readings made by the pupils for their English teachers, and the number of supplementary readings read in a section of a class period in which pupils were free to read or to do something else according to their preferences.

The records of school library reading of history were scattered. What there were, favored the control group, there being a record of approximately 27 hours for the six control sections and 23 hours for the six experimental sections. The entries were not extensive enough to permit a computation of reliability.

The pupils' lists of history they had read were not obtained in a sufficiently standardized way to make the totals comparable. Lists in some sections were evidently much more complete than in others. The English teacher's influence was not constant in the experimental and control groups as was

the history teacher's influence, for two sections taught by the same history teacher were not invariably taught by the same English teacher. The control group total was 514 compared to the experimental group total of 199. The truest comparison with this data is probably a comparison of the percentage of the total list which is history. This comparison favors the control group. The listed readings of the control group were 12 per cent history and those of the experimental group were 10 per cent history. The probable error of the difference is 1 per cent. If the photoplays were responsible for any additional outside reading they were not responsible, according to the results stated in this and the preceding paragraph, for enough to offset the slightly greater ability of the control group.

The comparison of voluntary reading in the classroom under controlled conditions is shown in Table XVIII. The difference, which favors the experimental group, is highly significant statistically. It seems a small matter, but the difference is a 40 per cent difference and must be multiplied by 35, the average number of pupils per section, to show what it means for a section. Fifty-four per cent of experimental group pupils did the reading for their group, and 41 per cent of the control group pupils did the reading for that group. For just those pupils who did the reading the averages are, for the control group 18.7 and for the experimental group 19.5. Probable errors have not been computed for these last two comparisons, but they are supported by all five, and three out of five comparisons respectively.

The amount of voluntary reading and the average for those reading may be expected to be higher for a brighter group, judging from comparisons in all five of the instructional units. The percentage of the group reading may also

be expected to be larger in the brighter group judging from four of the five units. The excess scores of the experimental group, where found, are therefore in spite of, and not because of, the inequality of groups in ability.

Table XVIII

Comparison of Experimental and Control Groups in Number of Voluntary Readings in the Classroom under Controlled Conditions.

<i>Instructional Units</i>	<i>Control Group Av. per pupil</i>	<i>Experimental Group Av. per pupil</i>
I Pilgrims and Puritans	1.3	1.8
II Life in the Colonies	1.6	2.6
III Peter Stuyvesant	1.9	2.6
IV French and English	1.8	1.8
V Revolution	1.1	2.0
	<hr/>	<hr/>
Totals	7.7	10.8
Difference $3.1 \pm .6$		

SECTION XIII

Analysis of the Contribution of the Photoplays.

IN order to determine to some extent how the photoplays made the contribution described in previous sections, the Knowlton tests were regrouped into four tests: one of time knowledge, when conditions existed, or when events happened, or in what order they happened; one of place or geography; one testing knowledge of historical persons; and the fourth a test of knowledge of causal relations or of the interaction of events. This meant discarding the record of each pupil who was absent on the occasion of any one of the ten testings. In order to compare retention with learning it meant a further reduction in number of cases due to the summer's loss. The resulting groups of pupils for whom all eleven testings were available proved to be less equal in ability than the original groups. It was necessary to work with experimental sections f-i-j-m and control sections G-K-N-O to get groups closely equal in Mental Age. This left 61 in the control group and 72 in the experimental group. The teacher factor was kept constant as in all other comparisons.

The results obtained are presented in Table XIX. The contribution toward the teaching of time is a negative one, i.e., the experimental group learned less than the control group by 10 per cent. The former group, however, learned 19 per cent more geography, 23 per cent more about historical persons, and 35 per cent more about the interaction of events.

Table XIX

Comparison of Gains and Retentions on the Knowlton Tests Regrouped as Tests of Time, Place, Person, and Relation.

	Gains			Retentions			Per cent $\frac{E-C}{C}$	
	C	E	Diff.	C	E	Diff.	Gain	Retention
Time	10.2	9.2	1.0 \pm .9	4.7	3.7	1.0 \pm .8	-10	-21
Place	29.6	35.1	5.5 \pm 2.2	11.3	12.9	1.6 \pm 1.4	19	14
Person	8.6	10.6	2.0 \pm .8	5.8	7.0	1.2 \pm .9	23	21
Relation	11.2	15.1	3.9 \pm 1.1	7.6	10.9	3.3 \pm .9	35	43
Average	14.9	17.5	2.6 \pm 1.1	7.4	8.6	1.2 \pm .8	17	16

Table XX

Ranking of Time, Place, Person, and Relation, within Each Teacher's Influence, According to the Size of the Photoplay's Contribution within These Fields of Historical Knowledge.

Rank of 1 represents the greatest contribution.

Pairs of sections taught by the same teacher

$$\left(\frac{\text{Experimental section}}{\text{Control section}} \right)$$

	$\frac{l}{B}$	$\frac{h}{C}$	$\frac{m}{G}$	$\frac{f}{K}$	$\frac{i}{N}$	$\frac{j}{O}$
Time	3	4	3	4	4	2
Place	2	3	2	3	2	3
Person	4	2	1	2	3	4
Relation	1	1	4	1	1	1

Table XXI

Ranking, within Each Knowlton Test, of Time, Place, Person, and Relation, According to the Size of the Photoplay's Contribution within These Fields.

Rank of 1 represents the greatest contribution.

	Knowlton Tests.				
	I P.P.	II L.C.	III P.S.	IV F.E.	V Rev.
Time	2	3	4	4	4
Place	4	2	3	2	3
Person	3	* ¹	2	1	2
Relation	1	1	1	3	1

The contributions of the photoplays to the retention of time, place, person, and relation knowledge are approximately in direct proportion and approximately equal to the contributions to learning these concepts. Whatever determines the relative size of the contributions to acquiring these kinds of knowledge may be expected to contribute to their retention in the same way.

The rank order of the contributions to the teaching of time, place, person, and relation is in sufficient agreement among the six teachers and five Knowlton tests (shown in Tables XX and XXI) to suggest the statistical significance of the order found in Table XIX.

Assuming that it is statistically significant in this experiment, of what general significance are these findings? Would other investigations using these photoplays show similar results? Or are the obtained results peculiar to the tests used? Might it not be that the author in making his tests, has chosen samplings of time, place, person, and relation questions which in the order named are decreasingly representative of the whole unit of instruction and increasingly favorable

¹ No questions about persons included in this test.

toward allowing the photoplays to register a contribution?

These same questions may be raised concerning the whole contribution. In an earlier section the question was raised as to the validity of the tests for measuring the contribution of the photoplays, and it was stated that in the opinion of three of five judges 96 per cent of the questions called for knowledge worth acquiring in the junior high school, and that 74 per cent of these questions were answered by six or more of the ten teachers who took the tests.

These criteria have been used as a basis on which to divide the regrouped tests into worth while and not worth while, and into parts according to teachers' knowledge.

The time, place, person, and relation questions were each divided into eight subtests, composed as follows:

1. worth teaching and known by 10 of 10 teachers,
2. worth teaching and known by 9 of 10,
3. worth teaching and known by 8 of 10,
4. worth teaching and known by 7 of 10,
5. worth teaching and known by 6 of 10,
6. worth teaching and known by less than 6 of 10,
7. not worth teaching and known by 6 or more of 10,
8. not worth teaching and known by less than 6 of 10.

Some of these subtests were later combined, but the data for each of the 32 subtests are reported in Table XXII. These data were secured from the entire experimental group consisting of sections f-h-i-j-l-m, and from B-C-G-K-N-O of the control sections. The gains are expressed in terms of the number of pupils learning to answer a given group of questions, out of six sections averaging 31 pupils each. There were normally 35 pupils per section, but on the average but 31 were present for both first and second testing.

*Data for the Determination of the Extent to Which the Contribution of the Photo-
plays Depends upon* (a) *Nature of the Knowledge Measured,*
(b) *Extent to Which This Knowledge Is Worth Teaching,*
(c) *Extent to Which Teachers Have This Knowledge.*

() = the number of questions or parts of questions upon which gain is based

E = experimental group

C = control group

	Time		Place		Person		Relation		Combined	
	$\frac{E \text{ gain}}{C \text{ gain}}$	()	$\frac{E \text{ gain}}{C \text{ gain}}$	()	$\frac{E \text{ gain}}{C \text{ gain}}$	()	$\frac{E \text{ gain}}{C \text{ gain}}$	()	$\frac{E \text{ gain}}{C \text{ gain}}$	()
All questions	$\frac{1462}{1666}$	(81)	$\frac{5178}{5160}$	(152)	$\frac{1642}{1408}$	(65)	$\frac{2399}{1756}$	(97)	$\frac{10681}{9990}$	(395)
Worth teaching and known by 10/10	$\frac{356}{363}$	(20)	$\frac{471}{535}$	(23)	$\frac{47}{52}$	(2)	$\frac{489}{421}$	(16)	$\frac{1363}{1371}$	(61)
Worth teaching and known by 9/10	$\frac{227}{268}$	(13)	$\frac{917}{779}$	(23)	$\frac{275}{149}$	(14)	$\frac{505}{402}$	(21)	$\frac{1924}{1598}$	(71)
Worth teaching and known by 8/10	$\frac{301}{385}$	(12)	$\frac{855}{747}$	(20)	$\frac{312}{247}$	(8)	$\frac{395}{279}$	(16)	$\frac{1863}{1658}$	(56)
Worth teaching and known by 7/10	$\frac{140}{133}$	(8)	$\frac{441}{490}$	(17)	$\frac{148}{95}$	(8)	$\frac{166}{113}$	(6)	$\frac{895}{831}$	(39)
Worth teaching and known by 6/10	$\frac{184}{171}$	(6)	$\frac{609}{689}$	(14)	$\frac{176}{166}$	(5)	$\frac{91}{103}$	(4)	$\frac{1060}{1129}$	(29)
Worth teaching and known by 5 or less of 10	$\frac{-24}{34}$	(10)	$\frac{851}{922}$	(27)	$\frac{275}{297}$	(14)	$\frac{493}{243}$	(27)	$\frac{1595}{1496}$	(78)
Not worth teaching and known by 6 or more of 10	$\frac{269}{300}$	(10)	$\frac{752}{703}$	(17)	$\frac{218}{225}$	(7)	$\frac{219}{180}$	(4)	$\frac{1458}{1408}$	(38)
Not worth teaching and known by 5 or less of 10	$\frac{9}{12}$	(2)	$\frac{282}{295}$	(11)	$\frac{191}{177}$	(7)	$\frac{41}{15}$	(3)	$\frac{523}{499}$	(23)

Table XXII should be read as follows: Of the 81 Time Questions, twenty of those calling for knowledge worth teaching were answered correctly by all of the ten teachers. There were 356 more correct answers to these twenty questions in the experimental group after the instruction than before. In the control group there were 363 more correct answers on the second test than on the first. Five lines down, we find that 10 of the 81 time questions called for knowledge worth teaching which was possessed by 5 or fewer of the 10 teachers. In the experimental group there were fewer correct answers to these ten questions than before, by 24. In the control group there were 34 more correct answers than on the initial test.

With these data it is possible to determine the extent to which the contribution of the photoplays to the learning of the experimental group was independent of the worthwhileness of the knowledge taught and was also independent of the extent to which history teachers have that knowledge.

If the photoplays made their total contribution of 19 per cent, $\frac{E \text{ gain} - C \text{ gain}}{C \text{ gain}}$, very largely in teaching material

which the judges checked as not worth teaching, then the value of the result of the experiment must be minimized to that extent. But if the photoplays made their contribution very largely in teaching material of which teachers are ignorant, the contribution of the photoplays need not necessarily be minimized. It is quite conceivable that the photoplays can teach some worth-while things which teachers do not know.

The groups B-C-G-K-N-O and f-h-i-j-l-m were used in their entirety in spite of a ten months mental age handicap on the part of the experimental group, since for our present purpose reliability is more important than absolute

value. But because the combined $\frac{E \text{ gain} - C \text{ gain}}{C \text{ gain}}$ for these

groups is 7 per cent instead of 19 per cent, this large difference in mental age has been corrected by increasing all percentages computed from the data in Table XXII by 12 per cent, to prevent confusion in reading the results. This rough correction cannot invalidate any comparison of results among the subtests.

The resulting percentages are shown in Table XXIII. Comparisons for material "worth teaching" and "not worth teaching" may be made between the second and third row. They may also be made separately within the categories "known" or "not known" in rows 6 and 8 or in rows 7 and 9. Likewise, "known" and "not known" may be compared as a whole in rows 4 and 5 or separately within the categories "worth teaching" or "not worth teaching" in rows 6 and 7 or rows 8 and 9. The last three rows differentiate the worth teaching items according to the extent to which the questions were correctly answered by the ten teachers. The "most frequently known" questions are those failed by 1 or none, the "less frequently known" questions were failed by either 2 or 3 of the 10; and the "least frequently known" were answered incorrectly by 4 or more of the 10 teachers tested.

The per cents in the last column justify the following answers to the questions which have been raised, subject only to the limitations of the criteria employed. The 19 per cent reported in section VIII is not a padded result due to the inclusion of questions which one would have to see the photoplays to answer, nor was it due to the inclusion of questions on history not worth teaching. If the questions of this sort which were in the tests had been omitted, the percentage advantage afforded the experimental group by the photoplays would have been greater than the 19 per cent reported.

Table XXIII

The Contribution of the Photoplays Relative to

- (a) *Nature of the Knowledge Measured,*
- (b) *Extent to Which This Knowledge Is Worth Teaching,*
- (c) *Extent to Which Teachers Have This Knowledge.*

The contributions are expressed as the percentage which the Experimental Group Gain minus the Control Group Gain is of the Control Group Gain.

The numbers in () are the numbers of questions on which the percentages are based.

	<i>Time</i>	<i>Place</i>	<i>Person</i>	<i>Relation</i>	<i>Combined</i>
All questions combined	0 (81)	12 (152)	29 (65)	49 (97)	19 (395)
Worth teaching	—1 (69)	12 (124)	35 (51)	49 (89)	20 (334)
Not worth teaching	1 (12)	12 (28)	14 (14)	45 (8)	16 (61)
Known	3 (69)	14 (114)	38 (44)	36 (67)	19 (294)
Not known	—121 (12)	5 (38)	10 (21)	119 (30)	18 (101)
Worth teaching and known	4 (59)	14 (97)	47 (37)	37 (63)	20 (256)
Worth teaching and not known	—159 (10)	4 (27)	5 (14)	115 (27)	19 (78)
Not worth teaching and known	1 (10)	19 (17)	9 (7)	34 (4)	16 (38)
Not worth teaching and not known	—13 (2)	9 (11)	20 (7)	185 (3)	17 (23)
Worth teaching and most frequently known	4 (33)	18 (46)	72 (16)	33 (37)	23 (132)
Worth teaching and less frequently known	—3 (20)	17 (37)	47 (16)	55 (22)	24 (95)
Worth teaching and least frequently known	—10 (16)	3 (41)	9 (19)	81 (30)	13 (106)

Analysis

Within the columns for "time," "place," "person," and "relation," the table shows the effect of "knownness" quite consistently (6 times out of 6 comparisons in 3 cases, and 5 out of 6 in the other), but the effect of "worth-whileness" is not consistent. It looks as if its effect were so slight apart from "knownness" that the errors and uncontrolled differences in "knownness" have outweighed it.

After making the table, it was found that the "worth teaching and known" were more commonly known than the "not worth teaching and known" and that a similar but not so large a difference existed between the "worth teaching and unknown" and the "not worth teaching and unknown." These differences resulted from the fact that there were more teachers who knew what was worth teaching than there were who knew what was not worth teaching. In other words, there was a somewhat symmetrical distribution of "knownness" among questions on knowledge "not worth teaching" and a highly skewed distribution among the "worth teaching" items.

But all cases of inconsistency involved results for such a small number of questions that it seemed inadvisable to make a more precise comparison. Without having done so, it seems safe to conclude that apart from the extent to which knowledge is common among history teachers, "worth-whileness" had very little effect upon the size of the contribution of the photoplays to the teaching of time, place, person, relation, or to all combined.

The situation is quite different for "knownness." The size of the contribution varies appreciably with the extent to which teachers commonly possess the knowledge in question. The photoplays taught some worth-while information about persons and places of which teachers are commonly

ignorant. They made a greater contribution to teaching such knowledge as is frequently possessed by teachers, and their contribution was greatest to the teaching of those things about persons and places which teachers most frequently know. This may be the result of either of two situations or of both. The most commonly known persons and places may be the ones best or most fully presented in the photoplays, or they may be the persons and places which teachers fit into their teaching. For place information, the variation in contribution was slight, ranging in the table from 3 to 18 per cent. For person information, the variation is greater, rising from 9 per cent to the teaching of material not commonly known by teachers, up to a contribution of 72 per cent to the teaching of knowledge possessed by 90 to 100 per cent of the teachers tested.

The contribution to the teaching of time knowledge was similar to the contributions to place and person teaching in that the contribution varied directly with the extent to which the knowledge is commonly possessed by teachers. But where the photoplays were of some use in teaching some things about places and persons of which teachers are commonly ignorant, they placed the experimental group at a disadvantage in learning that worth-while knowledge of "When?" or "in what order?" which teachers do not commonly possess. Only in the case of the most commonly known time knowledge did this disadvantage disappear.

This is not equivalent to saying that the photoplays taught no knowledge of time. The contrary is probably true. Probably many questions could have been asked about historical sequence to which the experimental group would have learned the answers from the photoplays. But they would be the smaller or more local, and in the seventh grade, less significant time relationships.

The inferior showing made by the experimental group on time questions may mean that only the most commonly known time knowledge is well portrayed in the photoplays, or it may mean that the photoplays cannot teach worthwhile time knowledge to seventh grade pupils unless the teacher fits the events of the photoplays and the photoplays as wholes into the proper time perspective. It might seem that the experimental group's disadvantage could also be attributed to its missing some effective drill given the control group. But the disadvantage is greatest when the knowledge being measured is least frequently possessed by history teachers. And further, what is least frequently known, is probably least likely to have been taught in the control group. In other words, the disadvantage to the experimental group was greatest on the material least likely to have been taught to the control group. This suggests that the photoplays produced confusion. To the extent that there was little or no teaching in the control group, the photoplays could put the experimental group to a disadvantage only in this way. Whatever the explanation, teachers using the photoplays will do well not to take for granted the teaching of time by the photoplays. For that matter, the same may be said with regard to any aspect of their contribution. However great a contribution the photoplays can make, good teaching can and should increase it.

The one division of historical knowledge, of the four studied, to the teaching of which the photoplays made the largest contribution, independent of the extent of the teachers' knowledge, is that of organization, or causal relationship, or the interaction of events. At the bottom of Table XXIII, going from the most frequently known to the least frequently known, it may be noted that the contribution to

the teaching of "relation" increases, while the contributions to the teaching of "time," "place," and "person" decrease. In other words, the photoplays were able to teach worthwhile relationships which are not commonly known by history teachers. But in the teaching of the most commonly possessed knowledge "relation" yields first place to "person."

The irregularity of change in the combined contribution, from 23 up to 24, and then down to 13, is attributable to the inverse relation, noted above, between the trend in the "relation" column and that in the "time," "place," and "person" columns.

In view of this inverse relationship it is quite possible that some of the differences between the rank orders in Tables XX and XXI, and that in Table XIX, are significant. It is only reasonable to suppose that the nature of the photoplays' contribution varied with the teacher, according to her interest and the relative emphasis placed by her upon time, place, person, and relation. Probably the nature of the contribution varied somewhat with the photoplay, and would vary with the same photoplay according to the teaching situation.

Reasons have been presented for thinking that the obtained results are independent of the tests used. The experiment was so conducted as to involve no special methods. The teachers were free to use their own methods, subject only to the experimental control. It is therefore safe to suppose that the results of the use of these ten photoplays are of general significance in the seventh grade.

If it had been found that the experimental group's excess gain had been distributed equally among the time, place, person, and relation portions of the tests, there would have

been little basis for deciding whether the group's greater interest was a result or a cause of the greater gain. But since the greater gain was of such a nature as to make it hard to ascribe it to greater interest, the greater interest shown by more reading and pupil participation may be attributed to seeing the photoplays and having more to talk about. This would in turn make for better learning and retention.

The material supplied for voluntary reading was so selected that with a very few exceptions it could not have contributed to the greater gain. Whatever the experimental group learned, because of its reading more than was read by the control group, was an indirect contribution to knowledge which was not measured.

SECTION XIV

Summary Statement of Results and Conclusions.

ON the Knowlton tests, designed to measure enrichment of a worth-while sort, the experimental group gain exceeded the control group gain by 19 per cent. The difference is 6.7 times its probable error, when N equals the number of measurements, and 2.7 times the probable error when N equals the number of pupils measured.

In order to show what it means for the experimental group to have learned 19 per cent more than the control group, another control group was used of sufficiently greater ability to permit it to make the same amount of gain as was made by the experimental group. This control group was found to be, on the average, over a year more mentally mature, more than one grade further advanced so far as their knowledge is concerned, and brighter than the experimental group by an amount which would rank them 20 in 100 as compared to a rank of about 60 for the experimental group.

The greater gain of the experimental group consisted of learning about, in descending order, causal relationships, persons, and places. The experimental group gained less of worth-while time knowledge, but learned twice as many worth-while causal relationships not frequently known by history teachers.

This enrichment did not take place at the expense of standardized progress as measured by the Van Wagenen History Scale, Information C-2. In fact, the progress of the experimental group, as measured by this scale, was slightly greater than that made by the control group.

Experimenters in visual education have been criticized,

sometimes justly and sometimes unjustly, for using tests which magnify the contributions of the aids being measured. In order to check the tests used in this experiment in this respect, they were appraised by expert judges and by history teachers who had not seen the photoplays. Against these criteria it was found that in so far as results above reported are in error because the tests used asked for knowledge not worth acquiring or not commonly possessed by history teachers, they are in error by minimizing the contribution of the photoplays.

Retention, over periods varying from three to seven months, was measured in two ways which may be called relative and absolute, relative being the per cent retained of what was gained, and absolute being the retained gain or net gain after forgetting.

The experimental group retained more, relatively, of knowledge of relationships, to the learning of which the photoplays also contributed most. Of person and place knowledge, the experimental group retained relatively about the same or a little less. Of time knowledge the experimental group clearly retained relatively less. Of all combined they also retained relatively less.

In the so-called absolute units, even though the experimental group forgot more, they retained more of relation, person, and place knowledge. Of time knowledge they retained less. Of all combined they retained more. Compared with the 19 per cent contribution on full gains, the contribution based on net gains is about 12 per cent. The loss was due chiefly to the forgetting of time knowledge.

There was no review of the teaching of the last experimental unit because it was followed by the summer vacation. This is the only unit for which the factor of review is con-

stant. For this unit the experimental group learned 25 per cent more than the control group and retained 27 per cent more than the control group retained. The difference in retained gains in this case is 1.7 times its probable error.

The control and experimental groups were compared as to the reading of history in the school library and outside of school, as to their liking for history as compared with their liking for six other subjects studied, and as to information contributed in class and obtained outside. In none of these measures did the experimental group average exceed the control group average.

However, as evidence of interest, more weight should be attached to the findings in the classroom, since they were obtained under controlled conditions. In the classroom discussion, the experimental group participated more to the extent of about 10 per cent and showed more desire to participate. This was especially true of the more voluntary participations. The difference upon which the 10 per cent is based is 3.6 times its probable error. The experimental group also voluntarily read more supplementary history material, their excess being about 40 per cent of the reading of the control group. A larger per cent of the experimental group contributed to the measures of both participation and reading; and for those contributing, the averages for the experimental group were higher. The difference upon which the 40 per cent is based is 5.2 times its probable error.

When one group voluntarily reads more history, and voluntarily takes part in classroom discussion of history more extensively than does another group, there is a real sense in which the first group is more interested in history than the second, even though this greater interest is not expressed in the ranking of subjects. In this sense the experimental group

showed a greater interest in history than was shown by the control group.

The conclusions of varying significance which may be drawn respecting the contributions of the photoplays are as follows:

1. The ten photoplays made a large contribution to the teaching of an enriched course of study, increasing the pupils' learning by about 19 per cent.

2. This contribution was of such a magnitude that average children with the aid of the photoplays learned as much as bright children did without them.

3. The photoplays, while providing this enrichment, made a small contribution to completing the minimum essentials in less time. The estimated saving in a forty-week year was one and one-half weeks.

4. The photoplays were most effective in teaching a knowledge of interrelationships involving the interaction of events and of forces. They increased the pupils' learning of this sort 35 per cent, or about twice as much as they increased the gaining of all kinds of historic knowledge.

5. The next largest contribution was to the teaching of historical personages. The increase of learning of this sort attributable to the photoplays was 23 per cent.

6. The contribution to the teaching of historical geography was 19 per cent.

7. The photoplays interfered with the teaching of time relationships. They decreased by 10 per cent the learning of such relationships.

8. The photoplays effectively taught a worth-while knowledge of the interaction of events which is not frequently possessed by history teachers.

9. In the part of the experiment in which there was no

review between teaching and retest for retention, the contribution to retention was greater than, or at least equal to, the contribution to learning. This was the contribution of four photoplays to the teaching of the Revolution. The pupils learned 25 per cent more by the use of the photoplays and remembered 27 per cent more after three months.

10. In general, the contribution of the photoplays was not as great to retention as to learning. The pupils learned about 19 per cent more with the aid of the photoplays but retained only about 12 per cent more.

11. This was due chiefly to the fact that the photoplays interfered with the retention of time knowledge to about twice the extent that they interfered with gaining it. By seeing the photoplays, pupils gained 10 per cent less of time knowledge and retained 20 per cent less.

12. The contribution of the photoplays to the remembering of historical geography was smaller than their contribution to learning it. Pupils learned 19 per cent more and remembered 14 per cent more.

13. The contribution to the retention of knowledge of persons was also less than the contribution to the gaining of it. With the aid of the photoplays pupils learned 23 per cent more and remembered 21 per cent more.

14. The contribution to the retention of knowledge of historical relationships other than those of time was greater than the contribution to gaining this knowledge. Of such relationships, pupils learned 35 per cent more, and remembered 43 per cent more.

15. The effect of the photoplays upon pupil participation in classroom discussion was in detail as follows:

- (a) more recitations were made at the request of the teacher;
- (b) a larger percentage of the class recited;

- (c) those reciting did so more often;
- (d) on these occasions more hands were raised;
- (e) more remarks were volunteered by the pupils not directly as a result of a teacher's question, i.e., upon those occasions when their own desire to participate more evidently prompted them;
- (f) a larger percentage of the group so volunteered;
- (g) those volunteering did so more often;
- (h) on these occasions more hands were raised for permission to participate;
- (i) more questions were asked;
- (j) a larger percentage of the group asked questions;
- (k) those who asked questions did so more often;
- (l) fewer contributions came in as a result of outside interest;
- (m) a larger percentage of the group made such contributions;
- (n) those contributing did so less often.

16. The increase in the total number of pupil participations attributable to the use of the photoplays was 10 per cent. This increase is equivalent to forty-six more participations in a year by each pupil, or about 1,600 more in a thirty-five-pupil section.

17. Seeing the photoplays did not cause the pupils to rank history appreciably higher among six other subjects studied.

18. It did not cause pupils to read more history in the school library during the school library periods, judging from the school librarian's record kept during the experiment.

19. It did not cause them to read more history outside of school, during the experimental period, judging from their own lists, made from memory at the end of the experiment.

20. It did cause them to read voluntarily more supplementary history material under controlled classroom conditions:

- (a) 40 per cent more reading was done;
- (b) a larger percentage of the group chose to read;
- (c) the average amount, for those reading, was larger.

The evaluation of these conclusions calls for a consideration of:

(1) the probabilities of an obtained result having been due to errors of sampling and of measurement;

(2) granting a real difference, the extent to which precision of experimental control justifies the interpretation of group differences as the influence of the experimental factor, and equality of results as lack of such influence; and

(3) assuming a real difference attributable to the experimental factor, the educational significance of the fact.

The reader should also remember that the comparison was not between poor oral instruction and an equal amount of visual instruction, but between good oral instruction on the one hand, and on the other, the same amount of instruction, five-sixths oral and one-sixth visual.

The outstanding findings of the experiment are, in the opinion of the writers:

(1) that the photoplays contributed materially to the gaining and retention of worth-while knowledge, particularly of knowledge of interrelationships, other than time;

(2) that they produced more pupil participation in classroom discussion; and

(3) that they caused the pupils who saw them to read voluntarily more supplementary history reading material under controlled classroom conditions.

APPENDIX I

The Knowlton Tests.

Pilgrims and Puritans.

Date.....

Name.....

Grade..... Division.....

I

Underscore the correct word or words in the statements below:

1. The Pilgrims began their wanderings (at the time, before, some time after) Jamestown was settled.
2. (The same, a different) King ruled the land.
3. The Pilgrims lived among strangers about (two years, ten years, twenty years) and then decided to move once more.
4. The Pilgrims reached America (before, at the same time, after) the Puritans did.
5. The Pilgrims set sail in (spring, summer, autumn) reaching the New England coast in (spring, summer, autumn, winter).
6. The voyage was (as long as, shorter than, longer than) the voyage of Columbus.
7. The Mayflower returned in (1621-1623-1625) leaving the Pilgrims alone in the new world.

II

Check any of the following events which happened *within the first ten years* of the history of the Massachusetts Bay Colony:

-Settlement of Rhode Island by Roger Williams
-Persecution of Quakers
-New England Confederation
-Banishment of Anne Hutchinson
-King Philip's War
-Settlement of Connecticut

III

The colonists had many difficulties to overcome before they could feel that their settlements were permanent. Some of these were things happening within the colony itself; others came from the outside. How would you classify the following difficulties which the Pilgrims and Puritans had to overcome?

Place an I in front of those which you think were inside difficulties, and an O in front of those which stood for things outside or attacks from without:

- Thomas Morton's trading post
- Criticisms of Roger Williams
- Archbishop Laud's attempt to secure the Charter
- Claims of Ferdinando Gorges to territory
- Rule of Harry Vane
- Disease
- Divine Right idea of the King of England
- Indians
- Teachings of Anne Hutchinson

IV



On the outline map above indicate by the number at the right the location of the following places or countries connected with the movements of the Pilgrims and Puritans.

- | | |
|--|------|
| The country village where the story of the Pilgrims begins | (1) |
| A foreign city where they lived when they started for America | (2) |
| The last town they saw before they reached the new world | (3) |
| Where they first landed in the new world | (4) |
| Where they actually settled | (5) |
| The most important one of the early Puritan settlements | (6) |
| Where Roger Williams lived before he was driven out of the colony | (7) |
| The bay where he made his settlement | (8) |
| The rivers named in the Puritan charter which helped to mark the northern and southern boundaries of their grant | (9) |
| The part of New England already granted by the King to Ferdinando Gorges | (10) |

V

Opposite each of the numbers 1 to 10, write the name of the city or locality which you have shown on the outline map.

- | | |
|---------|----------|
| 1. | 6. |
| 2. | 7. |
| 3. | 8. |
| 4. | 9. |
| 5. | 10. |

VI

One thing which makes the story of the Pilgrims and Puritans so interesting is the fact that while some things happen in England and others take place in America, these happenings are often closely connected.

Indicate by using the numbers in front of each item, just where each of the events took place. Place in column headed "America" those numbers corresponding to events which took place in America, and in column headed "England" those which took place in England.

- (1) Destruction of Merrymount
- (2) Banishment of Thomas Morton
- (3) Signing of the Mayflower Compact

- (4) Sir Ferdinando Gorges appointed Governor-General of New England
- (5) Meeting of a Commission to get possession of Puritan Charter
- (6) Thomas Morton aids Sir Ferdinando Gorges
- (7) Sir Harry Vane is chosen Governor of Massachusetts Bay
- (8) Roger Williams questions the Massachusetts Bay Charter
- (9) Order for return of Charter
- (10) Anne Hutchinson stirs up trouble
- (11) Order issued for banishing Roger Williams
- (12) Religious meetings of Pilgrims broken up by government officials
- (13) Meeting of Pilgrims to make plans for leaving their native land

America

.....

England

.....

VII

Complete the following sentences by placing an (X) before the statement which you think is correct:

1. Thomas Morton aided Sir Ferdinando Gorges because of
 - () the destruction of Merrymount
 - () the signing of the Mayflower Compact
 - () the order issued for banishing Roger Williams
2. The same authority which appointed Sir Ferdinando Gorges Governor-General of New England
 - () issued the order for banishing Roger Williams
 - () chose Sir Harry Vane as Governor
 - () ordered the return of the Charter

3. One reason why the Committee met to get possession of the Puritan Charter was because
- () Thomas Morton had been banished
 - () Sir Ferdinando Gorges was appointed Governor-General of New England
 - () Roger Williams questioned the Massachusetts Bay Charter

VIII

Put T in front of the number if the sentence is true. Put F if the sentence is false.

- ...1. The crew of the Mayflower sympathized with the efforts of the Pilgrims to form a settlement.
- ...2. The Pilgrims were depending altogether on Miles Standish's plans for protecting them against the Indians.
- ...3. The English neighbors of the Pilgrims were very friendly.
- ...4. The main purpose of the Pilgrims was to find a place of refuge where they could keep their faith.
- ...5. The Pilgrims and their leaders were ready to return to England after they had gone through their first New England winter.
- ...6. The Puritans had great confidence in their first governor, John Winthrop.
- ...7. The Archbishop of Canterbury, the head of the English Church, hated the Puritans and tried his best to ruin them.
- ...8. Roger Williams did not have a single friend in the Massachusetts Bay Colony.
- ...9. The Puritans in America were anxious to have friends in England who could take their part with the King.
- ...10. Roger Williams did not wish to do anything to harm the Massachusetts Bay Colony.
- ...11. Winthrop and the Puritan leaders were not worried over Roger Williams' attacks on the Charter.
- ...12. The Puritans were ready to surrender their charter when asked to do so.

IX

Below you will find a list of words and phrases which might be used to describe a Puritan or a Pilgrim. Will you place in front of

each of those which seem to you to describe best a Puritan an O and in front of those which seem to you to describe best a Pilgrim an X.

- | | |
|-------------------------|----------------------------------|
|Peaceable |Plain |
|Influential |Refined |
|Wealthy |Elegant (in dress or manner) |
|Poor (little money) |Courtly |
|Educated |With political ambitions |
|Aristocratic | |

Life in the Colonies.

Date.....

Name.....

Grade..... Division.....

I

Below you will find a list of some of the things which you might have expected to see had you visited one of the early English settlements in America between 1600 and 1660.

Go through the list and put a V in front of those you might have seen in Virginia. Then go through the list again and put an N in front of those you might have seen in New England.

- | | |
|------------------------------|-----------------------------------|
|(1) A meetinghouse |(13) A schoolhouse |
|(2) A post office |(14) Soldiers on guard |
|(3) A gallows |(15) A mill |
|(4) A flag and flagpole |(16) Well-kept streets |
|(5) Shops and stores |(17) Stocks |
|(6) A well |(18) A common or green |
|(7) A pillory |(19) A church |
|(8) A hospital |(20) A hotel or tavern |
|(9) A drill ground |(21) A market place |
|(10) Wagons |(22) Cannon for defense |
|(11) A stockade |(23) A blockhouse or fort |
|(12) A public storehouse |(24) Sheds for drying tobacco |

II

What are some of the things you would have expected to see had you entered the home of one of the colonists between 1607 and 1640?

Put an X in front of each one you would have expected to see.

- | | |
|--|-----------------------------|
| Upholstered chairs | Fireplace |
| Polished tables | Tables of rough boards |
| Spinning wheel | Carved bedsteads |
| Beds of boughs and twigs | Candlesticks |
| Implements for grinding grain | Glass windows |
| Chests | Wooden bowls |
| Metal goblets | Rough benches |
| Glassware | Rocking chairs |
| Andirons | Framed pictures |
| Bric-a-brac (vases, ornaments,
etc.) | Lamps |
| Rugs | Pine torches |
| Board floors | Stools |
| Dried herbs | Farming tools |
| Muskets | Window curtains |

III

Fill in the missing word wherever there is a blank, or, if there is a choice of two words, as in Nos. 4, 8, and 11, cross out the *wrong* word or words.

1. At the time the Jamestown colony was settled the nearest people of their own nationality lived in
2. Their nearest European neighbors in America were the who lived in
3. Their nearest Indian neighbors lived in what is now the state of
4. They had (trouble, no trouble) with the Indians.
5. At the time Plymouth was settled the nearest English neighbors of the Pilgrims lived in
6. Their nearest European neighbors (not English) in America were the who lived in

7. Their nearest Indian neighbors lived in what is now the state of
8. They had (trouble, no trouble) with the Indians.
9. At the time the Massachusetts Bay Colony was settled their nearest English neighbors lived in
10. Their nearest Indian neighbors lived in what is now the state of
11. They had (trouble, no trouble) with these Indians.

IV

The early colonists brought with them many of their English customs and ways of doing things. Others they learned from the Indians. Still other occupations and ways of doing things were the result largely of the new country, its resources, and the natural conditions which they faced.

Before each of the things named below place an E, an I, or a C to indicate whether it was their English training (E), the Indians (I), or the country (C) which was largely responsible for their doing each of the things named or for the way they did them. The first one is done for you as an illustration.

. E . Dividing the land, because that is the way they divided land in England.

- | | |
|-----------------------------------|------------------------------------|
| Raising corn | Cultivating tobacco |
| Building ships | Spinning and weaving cloth |
| Candle-making | Fur-trading |
| Shoe-making | Fishing |
| Laying out the settlement | Lumbering |
| Building houses | |

V

Underline the correct answers:

1. The early English settlements were (of medium size, small), containing (a few, a large number) of houses.
2. The number of people in one of these settlements averaged (200, 500, 100).
3. The number of women was (large, small) in comparison with the number of men.

4. The settlements were about the size of a (country village, fair-sized town, small city).
5. The farms or fields were usually (outside, inside) the settlement.
6. They owned (no, large numbers of, small numbers of) cows, pigs, sheep, goats, and poultry.
7. They brought over (many, few) of their English customs.
8. Their dress (was like, was different from) that worn in England.
9. The settlers (readily, with difficulty) accustomed themselves to the new life.
10. Strict laws with death as a common punishment were in force in (New England, Virginia).
11. The people managed their affairs in town meetings in (New England, Virginia).
12. The colonists usually had short hair and wore broad-brimmed, high-crowned hats with only a band for an ornament in (New England, Virginia).
13. The colonists usually dressed in rich, gay clothing with broad collars in (New England, Virginia).
14. The colonists were largely under the control of trading companies and bodies of merchants in (New England, Virginia, Maryland).
15. Charters guaranteed to all the colonists the rights of Englishmen in (Massachusetts Bay Colony, Plymouth, Connecticut, Virginia, Maryland).
16. A colonist wrote that "Our men were destroyed with cruel diseases, so they died sometimes two or three of a day." He might have been describing conditions in (Jamestown, Plymouth, Massachusetts Bay, Connecticut, Maryland).
17. "Many were the assaults and ambuscades of the savages" in (Jamestown, Plymouth, Massachusetts Bay, Connecticut, Maryland).
18. "They came to that misery that some starved and died with cold and hunger" in (Jamestown, Plymouth, Massachusetts Bay, Connecticut, Maryland).



Pocahontas and John Rolfe, after their wedding in the Jamestown church, surrounded by admiring colonists.

(From "Jamestown," one of The Chronicles of America Photoplays)

Peter Stuyvesant.

Date.....

Name.....

Grade..... Division.....

I

Below are eight sentences about persons who were more or less closely connected with the story of how New Netherland became English. Complete the sentences by selecting from the list of adjectives the one which you think best describes the attitude of each, and write the number corresponding to the adjective in the blank space provided.

1. The King of England was
2. Peter Stuyvesant was
3. The members of the Dutch West India Company were
4. The English settlers of New Amsterdam were
5. The Dutch settlers of New Amsterdam were
6. The London merchants were
7. The members of the court of Charles II were
8. The brother of the English King was

List of Adjectives to choose from

- | | |
|----------------------|---|
| 1. ambitious | 9. short-sighted (that is, not looking ahead into the future) |
| 2. obstinate | |
| 3. easily influenced | 10. dissatisfied (or discontented) |
| 4. tyrannical | 11. enterprising |
| 5. liberty-loving | 12. far-sighted |
| 6. peace-loving | 13. indifferent |
| 7. easy-going | 14. slightly interested |
| 8. contented | 15. keenly interested |

II

Below are eight sentences to be completed, and under them are ten things these people might have said. Complete the sentences by selecting the best saying for each one. You need not copy the saying, just write its number in the blank space.

1. The King of England
2. Peter Stuyvesant
3. The members of the Dutch West India Company
4. The English settlers of New Amsterdam
5. The Dutch settlers of New Amsterdam
6. The London merchants
7. The members of the court of Charles II
8. The brother of the English King

Sayings

1. Freedom is not to be found under the flag of the Dutch West India Company.
2. The people manage their own affairs in the English colonies.
3. The people do not need to know what is going on.
4. We are simply doing our duty and acting as our conscience tells us.
5. The people are not competent to manage their own affairs.
6. Business comes first.
7. Trade follows the flag.
8. English trade is seriously threatened.
9. Nothing should be allowed to interfere with our pleasure.
10. We are ready to do anything within our power.

III

Underline the correct word or words in each of the statements below.

New Amsterdam was founded (before, about the same time, after) the English had made their first permanent settlement. It had been founded about (40, 20, 10) years when it was taken by the English. (James I, Charles I, Charles II) was then ruling England. By this time (3, 6, 8) of the thirteen English colonies had been founded. Within the next (25, 50, 70) years after its surrender the other colonies were founded. Peter Stuyvesant had been its ruler for almost (5, 10, 20) years when it was taken over by the English. New Sweden was added to New Netherland (before, during the time, after) he was governor.

IV

For the statements (a) to (e) below, some true causes are given and some false ones. Mark each one T for true and F for False.

- (a) The English King planned to take New Netherland because
- ☐ the Navigation Acts failed to check smuggling
 - ☐ Holland was at war with England
 - ☐ the control of the Atlantic seacoast depended upon the control of the Hudson
 - ☐ the Dutch were people belonging to a different church
- (b) The settlers of New Amsterdam in 1664 were ready for a change of rulers because
- ☐ trade was not good enough
 - ☐ the Stuart kings believed in divine right
 - ☐ Peter Stuyvesant closely supervised the affairs of the colony
 - ☐ the control of the West India Company was too strict
- (c) Peter Stuyvesant finally handed over the colony to the English because
- ☐ the English fleet defeated the Dutch fleet
 - ☐ the people of the colony objected to fighting
 - ☐ the Dutch West India Company ordered him to do so
 - ☐ the people of the colony spoke so many languages
- (d) The possession of New Netherland was important to the English because
- ☐ they desired the control of the Hudson River
 - ☐ they desired the control of the fur trade
 - ☐ they wished to enforce the Navigation Acts
 - ☐ they feared the attacks of the Indians
 - ☐ they had an interest in trade
 - ☐ they had established colonies themselves
- (e) The possession of New Netherland was important to the Dutch because
- ☐ they desired the control of the Hudson River
 - ☐ they desired the control of the fur trade

- () they wished to enforce the Navigation Acts
- () they feared the attacks of the Indians
- () they had an interest in trade
- () they had established colonies themselves

V

Some of the things which an English visitor to a Dutch settlement might have noticed are listed below. Make an X in front of those which he would have recognized as decidedly "Dutch."

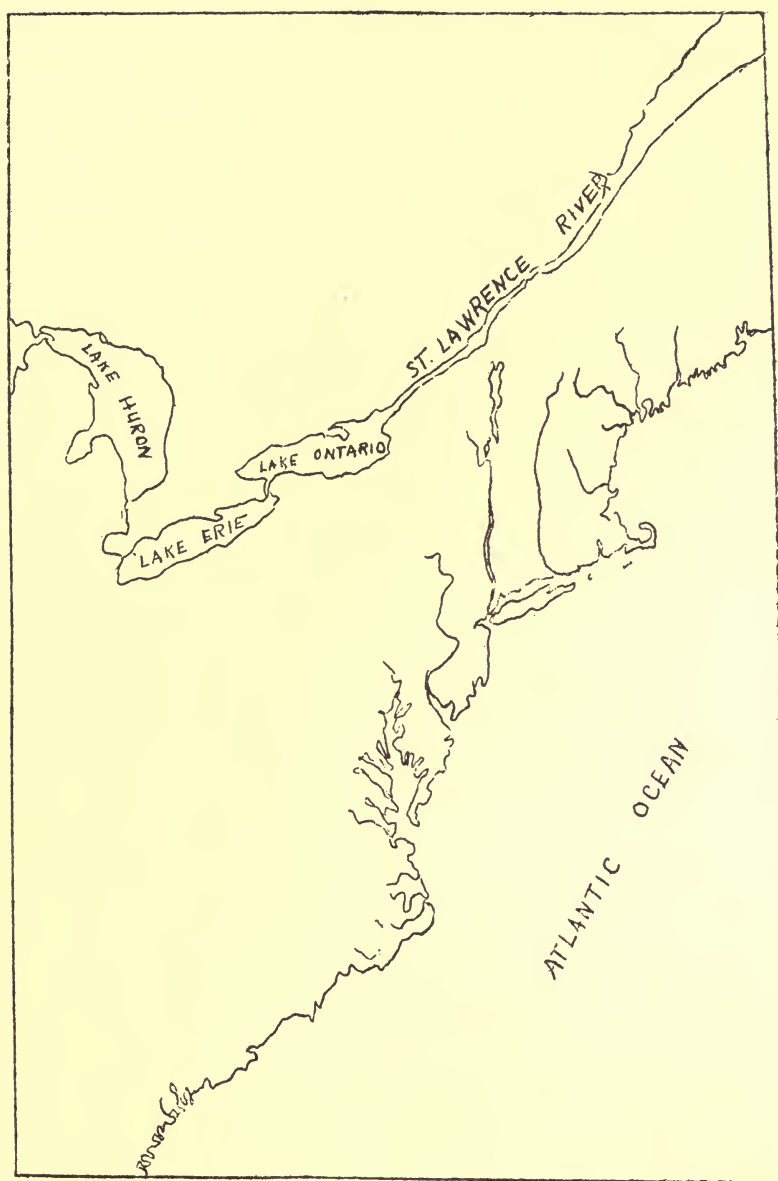
- | | |
|----------------------------------|--|
|A blockhouse or fort |Rooms with sanded floors |
|Taverns and drinking places |Rooms with beamed ceilings |
|Flocks of geese |Skating parties |
|Pigs roaming the streets |Women working on embroidery frames |
|Poultry and chickens |Well-kept yards and flower beds |
|Children spinning |Fireplaces with andirons |
|Wagons drawn by horses |A village common or green |
|Hourglasses in use as clocks | |
|Carts drawn by dogs | |
|Windmills | |

VI

Note that the map shows that part of the Atlantic coast which extends from Maine to Florida.

- (a) Draw a solid line (like this —) along that part of the Atlantic coast already settled by the English when New Netherland was attacked.
- (c)¹ Using the numbers below, 1 to 8, locate on the map
 1. The river which marked the eastern boundary of the land claimed by the Dutch.
 2. The river which marked the southern boundary of New Netherland when captured by the English.
 3. The river on which the Dutch made the most of their settlements.
 4. The most important Dutch settlement.
 5. The nearest territory to the New England settlements which was held by the Dutch at the time of its capture.

¹ As the test was used, item (b), because of an error in copying, was an exact duplicate of (a), and was therefore omitted.



6, 7, 8. Three English colonies formed from New Netherland.

(d) Complete the following sentences:

1. The river located in No. 1 was
2. The river located in No. 2 was
3. The river located in No. 3 was
4. The settlement in No. 4 was
5. The nearest Dutch territory in No. 5 was
6. The three colonies in Nos. 6, 7, 8 were,,

The Struggle Between the French and English for North America.

Date.....

Name.....

Grade..... Division.....

I

Underline the correct word or words in each of the statements below:

Quebec was settled in 1608. About (fifty years, one hundred years, one hundred and fifty years) after this the French by building forts were threatening the advance of the English westward across the Alleghanies. It was about (ten, five, three) years before the final battle that the English government realized how serious the situation was and sent help. Braddock's defeat took place (before, after) they had been aroused to the danger. It was about (ten, five, three) years after Washington's return from his mission warning the French, that the treaty of peace was signed settling the question of the English mastery of North America.

II

Fill in the missing words, one word in a blank:

When the final struggle opened for the possession of North America the French obtained the land bounded on the East by

..... and on the west by The English had settlements as far north as the present state of and as far south as the present state of The French first entered North America by way of the river and gradually made their way inland building forts along the river, the , and the river. Finally they followed the tributaries of the river to their sources, threatening the English settlements in what are now the states of and Their principal fort here was Fort and this was located on land claimed by the colony of It was at the junction of the river and the river. Their principal strongholds in Canada were and The defeat of the French left the English in possession of North America from the Atlantic Ocean on the east to the on the west. When the war opened the continent of North America was divided between nations and when it closed it was divided between nations.

III

Put a cross before the adjectives which best describe the French in America at that time.

- | | |
|--|-----------------------------------|
|1. Protestant |8. Self-confident |
|2. Catholic |9. Generous |
|3. Loyal subjects of the King | ...10. Quick of speech and action |
|4. Liberty-loving | ...11. Venturesome |
|5. Slow | ...12. Cautious |
|6. Friendly with Indians | ...13. Over-bearing |
|7. Ready to take orders from their superiors | ...14. Tolerant |

IV

Put T in front of the number of the sentence if the sentence is true. Put F if the sentence is false.

-1. England would probably not have won had it not been for the work of the Navy.

-2. The English Government coöperated with the colonies throughout the struggle for North America.
-3. The French Government was not interested in New France nor its fate.
-4. There was everywhere in New France a fine spirit of co-operation shown between people in charge of affairs.
-5. There were colonists in America who were thoroughly alive to the dangers from the French.
-6. The final success of England was due primarily to the action of the government and to the aid which it sent.
-7. Wolfe was a much finer type of man than Montcalm.
-8. After Quebec was taken the situation was still critical.
-9. When the French began to plant forts in their neighborhood the English colonists sought to avoid war with them.
-10. Even though he was defeated Washington was commended for his part in the campaign against the French.

V

Below are some qualities which were shown by the leading men in the struggle between France and England. Answer the questions by selecting from the list below the qualities which you think *best* describe the men, and write the numbers corresponding to them in the blank spaces provided.

1. What three qualities did Washington best illustrate?
.....
.....
2. What three qualities did Pitt best illustrate?
.....
.....
3. What three qualities did Montcalm best illustrate?
.....
.....
4. What three qualities did Wolfe best illustrate?
.....
.....
5. What two qualities did Dinwiddie best illustrate?
.....

6. What two qualities did the Canadian governor, Vaudreuil, best illustrate?

. . . .

List of Qualities to choose from

- | | |
|-----------------------------------|------------------------------|
| 1. Resourcefulness | 7. Sense of responsibility |
| 2. Energy | 8. Strong sense of duty |
| 3. Anxiety | 9. Daring |
| 4. Self-confidence | 10. Consideration for others |
| 5. Spirit of self-sacrifice | 11. Lack of coöperation |
| 6. Vision of future, or foresight | 12. Determination |

The Revolution.

Date

Name

Grade Division

I

Some of the events which stirred up trouble between England and the colonies and finally led to war, took place before General Gage was placed in charge of the government of Massachusetts in 1774. Others took place afterward. In the column headed *A or B* below, place a B for the events which took place *before* Gage was placed in charge, and an A for those events which took place *after* he was placed in charge.

<i>Order</i>	<i>A or B</i>
. . . . 1. The Boston Massacre
. . . . 2. The Stamp Act
. . . . 3. The Election of Delegates to a Continental Congress
. . . . 4. The Boston Tea Party
. . . . 5. The attempt to capture Adams and Hancock
. . . . 6. Changing the capital and seat of government of Massachusetts

-7. The destruction of supplies gathered by the
Americans
....8. The Quartering Act

II

The events listed above are not in the right order. Arrange them in the order in which they happened by writing, in the column headed *Order* in No. 1, number 1 before the one which happened first, number 2 before the one which happened second, etc.

III

Underline the correct word or words in each of the statements below.

It was about (ten, five, three) years after the first of the grievances between England and her colonies which followed the conquest of New France, that they actually went to war to settle their differences.

Thomas Paine's pamphlet "Common Sense" was published (before, after) Lexington was fought. This was (five years before, two years before, the same year that) the Declaration of Independence was signed.

The following events had already taken place when the Declaration of Independence was signed: (Bunker Hill, hiring of Hessians, quartering of soldiers, battle of Trenton, Burgoyne's surrender, Arnold's treason).

George Rogers Clark's conquest of the Northwest Territory was (before, after) the Battle of Saratoga. After Saratoga the scene of the principal fighting between the English and Americans was in (New England, the Middle colonies, the Southern colonies).

Benedict Arnold's treason was (some time before, just before, just after) the Yorktown campaign had begun.

IV

Fill in the missing words, one word in a blank:

George Rogers Clark was acting for the governor of when he set out to drive the English from the Northwest Territory. When he set out, the most western settlement which this colony had planted was in what is now the state of He

set out from He first captured
 He moved from here through a flooded country to The
 British governor of the Northwest Territory had his headquarters
 at The territory which George Rogers Clark won from
 the English included the present five states of,,
,,

Washington and his army had to cross the colonies of
,,, and, in order to join
 the other American forces before Yorktown.

Because of the opposition in Massachusetts the English govern-
 ment removed the capital and seat of government from
 to

The first battle of the Revolution was fought at The
 last important battle was fought at

The Declaration of Independence was signed at

The attempt to capture Hancock and Adams was at

The French established their headquarters in America at
 in the colony of

Sir Henry Clinton directed the movements of the British armies
 from his headquarters in

V

Put T in front of the number of the sentence if the sentence is
 true. Put F if the sentence is false.

-1. The soldiers in Boston were entirely to blame for the Bos-
 ton Massacre.
-2. There was a great deal of opposition in connection with
 the election of delegates to the Continental Congress at
 Philadelphia.
-3. The colonists were united in their desire for a war with
 England.
-4. Many of the people of Boston coöperated with Gage and
 his soldiers and helped them all they could.
-5. It was the poor people, not the rich nor well-to-do who
 were opposed to England and caused the Revolution.
-6. When it came to declaring their independence from Eng-
 land, the American people were united.

- ...7. The Declaration of Independence could not have been passed if one colony had voted against it.
- ...8. Soldiers fighting on the American side not only deserted, but often refused to obey their officers.
- ...9. The British army had plenty of money to get what they wanted, while the Americans had little.
- ...10. The war was practically won fully two years before the final struggle at Yorktown.
- ...11. The success of Cornwallis depended largely upon the co-operation of Sir Henry Clinton.
- ...12. The French rendered effective aid to the American army as soon as the Treaty of Alliance was signed.
- ...13. The war was decided on land without the use of a fleet.
- ...14. Governor Hamilton was too much of a gentleman to have been guilty of the charges brought against him that he encouraged his Indian allies to scalp wounded Americans.

VI

Below are given the names of six men who were prominent characters in the Revolutionary War, and under them are six sentences which describe them. After each sentence write the name of the man who best fits the description.

- | | |
|----------------------|------------------------|
| 1. Samuel Adams | 4. Thomas Paine |
| 2. John Hancock | 5. John Dickinson |
| 3. Benjamin Franklin | 6. George Rogers Clark |

- 1. When the news of the battle of Bunker Hill came, and the Continental Congress wanted to draw up a paper justifying their rebellion, he was opposed to any strong statement.

.....

- 2. A wealthy merchant, apparently fond of dress and willing to sacrifice his business for his beliefs.

.....

- 3. A man who was writing and talking to persuade his fellows that they would be better off if altogether free from England.

.....

4. A man who was willing to take chances; a natural leader of his fellow men.
.....
5. A man whose chief desire was to be a leader of men; successful in making others do as he wanted them to.
.....
6. A rather jolly old man who usually was trying to smooth things over and to get people to agree with each other.
.....

VII

Below are several reasons which a man of 1776 might have given for being either a Whig or a Tory. Mark with a W all those which he might have given for being a Whig. Mark with a T those which he might have given for being a Tory.

- ... 1. Because of interference with his trade.
- ... 2. Because of his admiration and respect for the British form of government.
- ... 3. Because of the possibility of being freed from debt.
- ... 4. Because of the possibility of his losing his property.
- ... 5. Because of his fear of war and love of peace.
- ... 6. Because of the acts of injustice of the English government.
- ... 7. Because of the protection offered by the British government.
- ... 8. Because he was an officeholder in the colonies.
- ... 9. Because he belonged to the working class.

Instructions for Testing.

PASS papers, and read the following directions:

"Write your name, grade and section, and the date, on the first page, and write your name on each of the other pages."

(For the first testing)

"Professor Knowlton made this test to find out what you know

about (read title), and I want you to read every question carefully and answer as many as you can."

(For the second testing)

"The test today is to find out how much you have learned about (read title), and I want you to read every question carefully and answer as many as you can."

(For both first and second testing)

"The test is divided into parts and the directions are on the paper for each part. Read the directions carefully and ask no questions, unless you can't read the print or don't understand the directions."

"If you work steadily you'll have time to try every question."

Collect papers as they are finished.



Messengers from England arrive in the colony with orders from
Sir Ferdinando Gorges, the royal Governor General of
New England.

(From "The Puritans," one of The Chronicles of America Photoplays)

APPENDIX II

Selections for Voluntary Reading.

Morton's Story of How the Puritans Came To Attack His Settlement.

THE inhabitants of Pasonagessit (old name of the settlement which they were having changed to Merrymount) did devise among themselves to have it performed in a solemn manner with revels and merriment after the old English custom; prepared to set up a Maypole upon the festival day of Philip and Jacob; and therefore brewed a barrel of excellent beer and provided a case of bottles to be spent, with other good cheer, for all comers of that day. And because they would have it in a complete form, they had prepared a song fitting to the time and the present occasion. And upon Mayday they brought the Maypole to the place appointed, with drums, guns, and pistols, and other fitting instruments, for that purpose; and there erected it with the help of savages, that came thither for that purpose to see the manner of our revels. A goodly pine tree of eighty feet long was reared up, with a pair of buck's horns nailed on, somewhat near unto the top of it; where it stood as a fair mark for directions; how to find out the way to mine Host of Ma-re Mount.

And because it should more fully appear to what end it was placed there, they had a poem made, which was fixed to the Maypole, to show the new name confirmed upon that plantation; which although it were made according to the occurrence of the time, it puzzled the Separatists most pitifully to explain it. The setting up of this Maypole was a lamentable spectacle to the precise Separatists that lived at New Plymouth. They termed it an idol; yea, they called it the calf of Horeb; and stood at defiance with the place, threatening to make a woeful mount and not a merry mount.

There was likewise a merry song made which was sung with a chorus, every man bearing his part; which they performed in a dance, hand in hand about the Maypole, while one of the company

sang and filled out the good liquor. One verse of the song ran like this:

“Make green garlands, bring bottles out;
And fill sweet nectar, freely about,
Uncover thy head and fear no harm,
For here’s good liquor to keep it warm.”

This harmless mirth was much disapproved of by the precise Separatists . . . and from that time they sought occasion against my honest Host of Ma-re Mount to overthrow his undertakings and to destroy his plantation quite and clean.

1. Upon what day did the inhabitants of Pasonagesit plan a festival?
2. What did they put near the top of the pole?
3. What was the new name of the plantation?
4. Who disapproved of the merrymaking?

The Voyage of the Mayflower.

FINALLY, 102 persons with their belongings crowded into the *Mayflower*, and on September 16, 1620, the Pilgrims for the third time bade farewell to their friends on the shores, as Captain Jones assured them that they would not return again.

During the first half of the journey the vessel only encountered the prevailing westerlies. Every day at sea life was about the same. In the forward part of the boat were the poultry, goats, and swine that had to be fed. The crew and passengers did not have an opportunity to cook much food. You can understand that a frying pan, held over a bed of charcoal in a box of sand, was inadequate to supply the necessary food conducive to good health. Consequently uncooked food, lack of balanced meals and fresh fruit, and insufficient exercise produced numerous disorders that could not be corrected during the long voyage.

In midocean the tempestuous waves tossed the vessel in such a manner that one of the main beams in the center of the ship cracked, and the peerless captain believed at one time that it might

be necessary to return again. The crew and the leaders among the passengers held a conference at which it was agreed to repair the break. Very fortunately one of the band possessed a large iron screw that he had brought with him from Holland. The crew managed to raise the main beam with jacks and to force the screw in the dislocated timber. Needless to say there was great rejoicing when the fractured timber was repaired.

One morning the captain peered into the distance and noticed the black heads of thunderclouds. Soon a terrific storm broke, the rain coming down in torrents accompanied by heavy thunder and lightning. When the storm reached the zenith of its fury, John Howland, a sturdy passenger, was washed overboard by the violent waves. But just before this accident the coil of the topsail halyards was swept over the deck of the vessel and trailed in the water, and very fortunately John Howland caught a firm grip on the coil and hung on until the storm abated. Then he was brought to the deck with a boat hook. As a result of this experience he was quite ill for a long time, but according to records he was the last of the Pilgrim company to die.

1. Who was Captain of the Mayflower?
2. What was the matter with their food?
3. With what did they repair the broken beam?
4. What was it that kept John Howland from being lost at sea?
.....

The First Thanksgiving.

GOVERNOR BRADFORD was so satisfied with the first harvest that he desired to set apart a day for special thanksgiving. To provide additional meat for the feast the governor instructed four hunters to kill wild fowl for the occasion. These men hunted incessantly until they procured enough birds to supply the entire colony for a week. Inasmuch as the rich harvest was due to the help of the friendly Indians, the colonists decided to extend a cordial invitation to Massasoit and his braves to take part in the feast attending the first Thanksgiving.

"Pleasantly rose the sun the next morning over the little village" of Plymouth where the first Thanksgiving was to be held. For this time of year the November morning was remarkably fresh and beautiful. Underneath the oaks and chestnuts stood the long tables, loaded with good things in preparation for the celebration of the successful harvest.

In the distance could be seen Massasoit with his ninety companions moving slowly among the saplings. Foremost marched the great sachem, conducting his men in single file to this remarkable Thanksgiving feast. The king wore fur of beaver about his loins, moccasins of deer skin on his feet, and peacock feathers in his hair. Aside from being oiled, his face was painted a bright red, while a string of bone beads, which encircled his neck, distinguished him as chief. In the rear of the file were Indians who bore venison, wild turkey, and corn.

As the Indians approached, a four-pounder on an adjacent hill-top saluted the invited guests and formally opened the festivities of the day. Following this salute the Pilgrims formed lines, three abreast, and marched solemnly behind Elder Brewster, who wore a long camlet coat and carried his Bible. The party proceeded to the log meeting house, where the Thanksgiving services were held.

At the conclusion of the exercises the Pilgrims and Indians took their places at the long table that was spread with roast turkey, baked clams, broiled fish, boiled squash, pumpkin pie, and roast venison. After dinner the Pilgrims, in order to entertain their visitors, played numerous games, but the Indians did not seem to enjoy these sports, so amused themselves by singing, howling, dancing, and playing their own Indian games.

The Thanksgiving festival continued for three days, and has been repeated regularly each year for more than a century.

1. Why did the colonists invite the Indians?
2. What three things did the Indians bring with them?
3. After saluting the Indians, what did the colonists do next?
4. Did the Indians play games with the Pilgrims?



In the cabin of the "Mayflower" in November, 1620, the Pilgrims assemble and draft the Compact, the basis of government in the New World.

(From "The Pilgrims," one of The Chronicles of America Photoplays)

Roger Williams Describes His Flight and the Founding of Providence.

IN 1670 Roger Williams wrote a letter to a friend and told him some of his adventures, saying:

“When I was unkindly and unchristianly, as I believe, driven from my house and land and wife and children (in the midst of New England winter, about 35 years past) at Salem, that ever honored Governor Mr. Winthrop privately wrote to me to steer my course to Narragansett Bay and Indians for many high and heavenly and public ends, encouraging me from the freeness of the land from any English claims or patents. I took his prudent motion as an hint and voice from God and waving all other thoughts and motions, I steered my course from Salem (though in winter snow which I feel yet) unto these parts, wherein I may say *Peniel*, that is, I have seen the face of God.” Here he was evidently thinking of the story of how Jacob wrestled with the angel, as described in the Old Testament. When the struggle was over Jacob called the place *Peniel*, saying, “I have seen the face of God.”

“I first pitched, and began to build and plant at Secunk, now Rehoboth” (he is apparently still thinking of the wanderings of the Jews and the names of their old cities), “but I received a letter from my ancient friend Mr. Winslow, then Governor of Plymouth, professing his own and others’ love and respect to me, yet lovingly advising me, since I was fallen into the edge of their bounds and they were loath to displease the Bay, to remove but to the other side of the water, and then he said I had the country free before me and might be as free as themselves and we should be loving neighbors together. These were the joint understandings of these two eminently wise and christian governors and others, in their day, together with their counsel and advice as to the freedom and vacancy of this place, which in this respect and many other providences of the most holy and only wise, I called *Providence*.”

1. Where did Governor Winthrop advise Roger Williams to go?
.....
2. What time of year was it when he went?

3. Why didn't he stay at Rehoboth?
4. How much farther did he have to go from Rehoboth to be on free land?

How Sir Harry Vane Happened To Come to America.

HARRY's father was a very famous man at court. He had been knighted by the King when he was only twenty-two. The King had so much confidence in him that he had made him treasurer of the young Prince Charles. When Charles came to the throne, Harry Vane naturally received a great many honors at the King's hand. He represented England at the court of the King of Denmark, and also at the court of the great King Gustavus Adolphus of Sweden.

Little Harry might be said to have been born with a golden spoon in his mouth. He went to one of the best boys' schools and to Oxford University. He left college when he was a boy of nineteen and was sent by his father to serve the English ambassador at Vienna. When he returned his father's friends expected that he would become a prominent man at the King's court, but his father was surprised to find that the young man had already "turned Puritan." He did all he could to try to persuade his son to give up his beliefs, but all in vain. There is a story that his father left him alone purposely in a room one day where he was certain to come in close contact with the King, hoping that the young man would be very much taken by the dignity and grace of King Charles I. The young man, however, hid himself behind the curtains. The King, entering and seeing the curtains move, poked with his cane to see who was there, until Harry was forced to make his appearance and left the room in considerable confusion.

Young Harry now took a resolution not at all strange under the circumstances. Fixed as he was in his views, there was no career for him in England. How irksome life would be in the presence of his disappointed father, of the King whom he had avoided, and the Church of England officers whom he had defied! Of roaming on the continent he had had enough. Why not try New England? It was almost like leaving the planet to go there, but he was at the age

when distance and difficulty do not appall. Harry Vane set his face westward. His father remonstrated, but it is said the King interfered to remove obstacles. When he was just twenty-three, a correspondent of Sir Thomas Wentworth writes: "Sir Henry Vane's eldest son hath left his father, his mother, his country and that fortune which his father would have left him, and is, for conscience' sake, gone into New England, there to lead the rest of his days."

1. Harry's father represented England at what two courts?
.....
2. How old was Harry when he left college?
3. When Harry returned from Vienna what was there about him
that surprised his father?
4. Where did Harry go when he was twenty-three years old?
.....

The Pilgrims' First Meeting with Indians.

ON Wednesday, December 16, the party set out in a westerly direction and sailed in their shallop along an unknown shore, studded with wave-worn and wind-worn boulders. The spray from the icy waters "froze on their clothes and made them many times like coats of iron."

As they approached the irregular shore line, they perceived a dozen or more Indians standing around a large fish. When the Indians saw the strange craft, they disappeared in the forest. The bay was so shallow that it was necessary to wade through the cold water in order to reach the shore. At this place, within the shadow of a wooded slope, they set up their camp for the night. The chilly December blasts, the smoke from the Indian encampments on the hillside, and the stormy clouds of a New England winter did not dampen their ardor and enthusiasm. Early the next morning they searched the rocky shore where they noticed the Indians the day before. To their great surprise they discovered a dead grampus which the savages had been cutting up for food. The grampus is about one-half the size of a Greenland whale, or about 20 to 30 feet in length. The Pilgrims named this place "Grampus Bay," now known as Eastham.

They spent another night in the open. Upon awaking the next morning, little did the Pilgrims think they would have a genuine skirmish with the Indians. Breathlessly the sentinels rushed into camp, shouting: "Indians! Indians!" Before the men seized their guns, a shower of arrows greeted them. It was Captain Miles Standish who, with his clumsy flintlock musket, returned the fire. Then in unison the others sent bullets from their matchlocks. The Indians, afraid of the unaccustomed noises, darted into the evergreens, yelling and howling.

Fortunately, as a result of this attack from the foe, the brave men were uninjured. An examination of the arrows strewn about the encampment showed that some were headed with brass, a few with harts' horns, and others with eagles' claws. The company remarked about the brass and wondered at the absence of flint arrowheads that the Indians were supposed to use. It did not take Captain Standish and his warriors long to embark from the scene of battle. As they climbed into the shallop from the icy water, the Pilgrims glanced back at the scene of excitement and named it "The First Encounter."

1. When the Indians first saw the Pilgrims what did they do?
.....
2. Why did the Pilgrims have to wade ashore?
.....
3. Did the Indians attack the Pilgrims in the night?
.....
4. Did the Pilgrims stay where they had landed another night?
.....

William Bradford Describes the Difficulties in Escaping to Holland.

THE next spring they made another attempt to get over (to Holland), with a Dutchman who was by appointment to take them in between Grimsby and Hull, where there was a large common a good way distant from any town. The women and children, with the goods, were sent to the place in a small bark which they had

hired for that end; and the men were to meet them by land. But it so fell out, that they were there a day before the ship came, and the sea being rough, and the women very sick, prevailed with the seamen to put into a creek hard by, where they lay on ground at low water. The next morning the ship came, but they were fast, and could not stir till about noon. In the meantime, the ship master, perceiving how the matter was, sent his boat to be getting the men aboard whom he saw ready, walking about the shore. But after the first boat full was got aboard, and she was ready to go for more, the master espied a great company, both horse and foot, with bills and guns and other weapons; for the country was raised to take them. The Dutchman seeing that, swore his country's oath, "sacremente," and having the wind fair, weighed his anchor, hoisted sails, and away. But the poor men which were aboard were in great distress for their wives and children, which they saw thus to be taken, and were left destitute of their help; and themselves also, not having a cloth to shift them with, more than they had on their backs, and some scarce a penny about them, all they had being aboard the bark. It drew tears from their eyes, and anything they had they would have given to have been ashore again; but all in vain, there was no remedy, they were thus sadly parted. The men on the ship endured a fearful storm at sea, but in the end reached their desired haven.

The men on shore managed to escape. But pitiful it was to see the case of the poor women in this distress; what weeping and crying on every side, some for their husbands that were carried away; others not knowing what should become of them and their little ones. . . . After they had been conveyed from one constable to another, their captors were glad to be rid of them upon any terms. . . . But in the end they all reached Holland.

1. How were the women and children sent to the place from which they were to embark for Holland?
2. How did the men go?
3. Why did the ship sail before all were on?
4. Were these men and women finally successful in reaching Holland?

How the Pilgrims Left Their Amsterdam Homes and Went to Leyden.

THE Pilgrims loaded their boats in one of the small waterways of the city of Amsterdam. The little flotilla was freighted with household goods and crowded with plainly and soberly dressed English people, conspicuous among whom was the dignified John Robinson. In clerical garb, wearing a cap which looked like a watermelon cut in half, with perhaps a little band of lace around the bottom, and wearing also a ruff around his neck, he was easily recognized. Brewster, a man in middle life, and Bradford, a young man of nineteen, were also prominent. The women and children enjoyed the outing in the lovely springtime as they passed through the garden region of Europe, where even at that early time the tulips were gorgeous and the other cultivated flowers magnificent. The country looked like a great checkerboard of green and white, for there were acres of linen bleaching on the grass, where the skilful bleachers, handling their wooden shovels as sprinklers, made Haarlem linen famous throughout the world.

The journey was along the Haarlem Canal until they got into the Haarlem Meer or lake. With the fields so green, the mild-eyed cows grazing everywhere, the birds in immense numbers flitting about, it was an enjoyable trip both to the parents and children. Everywhere the great flat landscape was dominated by the church spire. In the distance on their left were the shining waters of the Zuyder Zee. On the right rose the great sand hills or dunes which form Holland's wall of defense against the ocean. After these had been left far behind, probably late in the afternoon, they came in sight of the turreted gates and walls of Leyden, gay with the orange, white, and blue flag of the republic, and they saw the great church of St. Peter, under the shadow of which was to be their home.

As they drew nearer Leyden they turned aside from the lake into narrower and smaller bits of water until they came to the Rhine which flows through and incloses Leyden. At the Canal Gate they were challenged by the guard who finding their papers were all right, admitted them. They then went on to take up quarters which

they had probably already selected in the northwestern part of the city. Some of their number who had already found employment there were present to welcome the newcomers. Leyden was a manufacturing center for all kinds of woven goods; and next to finding peace and quiet to serve God, the idea of these Pilgrims on their second journey was to get work, that they might have food and the comforts of life.

1. Name three men who were conspicuous among the Pilgrims.
.....
2. How did they travel from Amsterdam to Leyden?
3. How did the guard at the gate know that they had a right to enter the city of Leyden?
4. Next to finding peace and quiet to serve God, what did they want in Leyden?

How Indentured Servants Were Treated.

THE number of bond-servants, even in New England, seems to have been large, and the supply was much greater in the wheat and tobacco countries. In 1670 Virginia had 6,000 English servants, while there were yet but 2,000 negroes. As the servants were freed in four years, this number represented a very large importation.

The treatment of servants was as various as the character of the masters. At first, while the country was new and the population sparse, there was a sort of good-fellowship between the faithful servant and his master's family, and there were not wanting those who granted many indulgences to their bondmen.

But even in 1629 De Vries, the Dutch traveler, saw English men and women staked and lost at cards, and he bluntly told the Virginians that he had "never seen such work in Turk or Barbarian." And when there had been brought over a multitude of "kids," as they were called, the decline in the average character of the servants and the incoming of negro slaves rendered the bondman's lot less tolerable, especially when the cultivation of a staple required large gangs of convicts and other immigrants of desperate fortunes and reckless temper.

It was an age of flogging; criminals, soldiers, sailors, pupils, children, and now and then even wives, were thought the better for a whipping. One ought hardly to be surprised, therefore, at the numerous and cruel whippings of English servants, women as well as men, who were whipped naked with hickory rods and washed with brine; the punishment continuing sometimes at intervals for hours, or being renewed day after day. There were also in use, by masters and overseers, thumbscrews, sweatings, and other such devil's devices. The food allowed was sometimes a scant diet of Indian meal. The sick servant was neglected lest the doctor's charge should exceed the value of his remaining service; and one thrifty master required a servant, sick of a mortal disease, to dig his own grave in advance, in order to save the other men's time.

1. Copy the sentence which means that some servants were treated well and some poorly.
2. Did the Dutch traveler, De Vries, praise the Virginians for the way they treated their servants?
3. Who else were whipped besides servants?
4. Were English servants treated cruelly or just the negroes?

The Worst Indian Massacre in Virginia.

THE year 1622 was long remembered in Virginia on account of the terrible massacre of settlers by the Indians. An Indian called "Jack of the Feather" killed a settler by the name of Morgan as the two were on their way to a village to do some trading. The Indian returned to the settler's house, where he found two of his servants who asked for their master. Jack said that he was dead. They suspected that the Indian had killed him, and so shot him. The chief of the tribe made great threats of revenge. As time passed the settlers thought he had forgotten all about it, but such was not the case. Here is the account of what happened as one of the settlers tells it.

"On the Friday morning that fatal day, being the two and twentieth of March, as also in the evening before, as at other times they

came unarmed into our houses, with deer, turkeys, fish, fruits, and other provisions to sell us; yea in some places sat down at breakfast with our people, whom immediately with their own tools they slew most barbarously, not sparing either age or sex, man, woman, or child; so sudden in their execution, that few or none discerned the weapon or blow that brought them to destruction. In which manner also they slew many of our people at several works in the fields, well knowing in what places and quarters each of our men were, in regard of their familiarity with us: and by this means fell that fatal morning under the bloody and barbarous hands of that perfidious and inhumane people, three hundred forty-seven men, women, and children; mostly by their own weapons; and not being content with their lives, they fell again upon the dead bodies, making as well as they could a fresh murder, defraying, dragging, and mangling their dead carcasses into many pieces, and carrying some parts away in derision, with base and brutish triumph.

“Neither yet did these beasts spare those amongst the rest well known to them, from whom they had daily received many benefits; but spitefully also massacred them without any remorse or pity.”

1. What did Morgan's servants suspect Jack of the Feather of doing?
2. What did they do to him?
3. Did the settlers think that the Indians had forgotten all about it?
4. How many settlers did the Indians kill?

Personal Possessions of an Early Settler.

WHEN a man died in those early days it was customary, as it is today, to make a list of the things he owned. Those lists, which are still to be found in some of the old records, give us a pretty good idea of the kind of life these people led. The value which is placed upon these things is also interesting, showing how well-to-do they really were. A shilling (s) in those days would be worth about twenty-five cents, and a pound (£) about five dollars.

Christopher Pearson, who died in 1698, left two feather beds,

four blankets, two bolsters, two pillows, a curtain and valance, in all worth £7; a pair of sheets, some old table linen, valued at 18s; plates and other pewter worth £1 18s; an old warming pan and other brass articles placed at 6s; wooden ware at £4.13.6 comprising three chairs and one table, a couch, four old chests, a cask, two ten-gallon rundlets, a cheese press, a box of drawers, an old table, three pails, a spinning wheel with cards, two sifting trays, a corn barrel, three bedsteads, four sieves and a funnel; ironware worth £2.1.0 including three pots, two pot rocks, a pestle, a frying pan, a looking glass; three cows appraised at £6.5.0, a yearling at 10s, a colt at £2 sterling. The entire estate was valued at £25.19.6 (about one hundred and twenty-nine dollars and eighty-one cents).

John Splitimber, who died in 1677, was possessed of one feather bed, one bolster, one red rug, one pillow, two blankets, one turned bedstead, one old mattress, eight cows, six calves, one bull, four mares, thirty-five hogs, two horses, a long gun and a short gun, fifty-six pounds of old pewter, one old flock bed, one old rug, a long table and form, three chests, an old couch, two old boxes, two iron pots, two small brass kettles, one pair of steelyards, spitfire shovel and tongs, two smoothing irons, two old weed hoes, two old axes, a few carpenter's tools, one iron pestle, a saddle and bridle, a frying pan, a butter pat, a jar, a looking glass, two milk pans, one tablecloth, nine spoons, a churnhand, a Bible.

1. What do the lists of what a man owned give us a good idea of?
2. What was their shilling worth in our money?
3. What was Christopher Pearson's estate valued at in our money?
4. What kinds of animals did John Splitimber own?

Life on a Large, Well-to-do Virginia Plantation.

CAPTAIN SAMUEL MATTHEWS was a well-to-do planter. One who lived at the time described his plantation and the life there as follows:

"He hath a fine house and all things answerable to it; he sows yearly store of hemp and flax and causes it to be spun; he keeps weavers, and hath a tan-house, causes leather to be dressed, hath eight shoemakers employed in their trade, hath forty negro servants, brings them up to trades in his house. He yearly sows abundance of wheat, barley, and so forth. The wheat he selleth at four shillings the bushel, kills store of beeves, and sells them to victual the ships when they come thither; hath abundance of kine, a brave dairy, swine great store, and poultry."

His example of trying to carry on some manufacturing on his plantation was followed by other planters in later times. One of them employed on his farm "two house carpenters, a ship carpenter, a glazier, two tailors, a gardener, a blacksmith, two brickmakers and two sailors, all indentured servants. Attempts were made to train the negro slaves to various trades, but they proved to be 'none of the aptest or nicest.'"

Thus the large plantation was a little community to itself, bustling with activity and depending upon its own exertions for many of the necessities of life. One might see at work, in addition to the field hands, carpenters, coopers, sawyers, blacksmiths, tanners, curriers, shoemakers, spinners, weavers, and distillers. The woods furnished plank for the erection of outhouses and charcoal for the blacksmith; the cattle supplied skins for the tanners and shoemakers; the sheep gave wool and the fields cotton and flax for the weavers; the orchard produced the fruit used by the distillers. The coopers made the hogsheads in which the tobacco was shipped, and the casks for wine and cider. The blacksmith repaired plows, harrows, chains, and hinges; the shoemaker made shoes for the negro slaves, the spinners and weavers the cloth for their clothes.

1. What two things does it say that Captain Matthews sold?
.....
2. Did other planters follow Captain Matthews' example?
3. Did these planters have to go to the store for many things?
.....
4. Where did the shoemaker get his leather?

Naming Children in Colonial Days.

PARENTS searched for names of deep significance, for names appropriate to conditions, for those of profound influence—presumably on the child's life. Glory to God and zealous ambition for the child's future were equally influential in deciding selection.

Rev. Richard Buck, one of the early parsons in Virginia, in days of deep depression named his first child Mara. This text indicates the reason for his choice: "Call me Mara for the Almighty hath dealt very bitterly with me. I went out full and the Lord hath brought me home empty." His second child was christened Gershon; for Moses' wife "bare him a son and called his name Gershon, for, he said, I have been in a strange land." Eber, the Hebrew Patriarch, called his son Peleg, "for his days were divided." Mr. Buck celebrated the *Pelegging*, or dividing of Virginia into legislative districts in connection with the establishment of the House of Burgesses, by naming his third child Peleg. Many names have a pathos and sadness which can be felt down through the centuries. Dame Dinely, widow of a doctor or barber-surgeon who had died in the snow while striving to visit a distant patient, named her poor babe Fathergone. A little Goodman child, born after the death of her father, was sadly but trustingly named Abiel, meaning *God is my father*.

In the old Ropes Bible in Salem is given the reason for an unusual name which often appears in that family; it is Seeth. One of the family was supposed to be dead, having disappeared. On his sudden reappearance a pious Ropes exclaimed in joy, "The Lord seeth not as man seeth, and my child shall be named Seeth."

Abigail, meaning father's joy, was frequently given, and Hannah, meaning grace; the history of these two Hebrew women made their names honored of New England Puritans. Zurishaddai, which meant *The Almighty is my rock*, was bestowed on more than one boy. Comfort, Deliverance, Temperance, Peace, Hope, Patience, Charity, Faith, Love, Submit, Endurance, Silence, Joy, Rejoice, Hoped For, and similar names indicative of a trait of character, a virtue or an aspiration of goodness, were common. The children of Roger Clapp were named Experience, Waitstill, Preserved, Hopestill, Wait, Thanks, Desire, Unite, and Supply.

With the exception of Puritanical names, double Christian names were very rare until after the Revolution.

1. What did Rev. Richard Buck name his first daughter?
.....
2. Why did Dame Dinely name her baby Fathergone?
.....
3. What did the name Hannah mean?
4. What did the name Zurishaddai mean?

Attending Church in Colonial Times, as Told by a Boston Colonist.

“EVERY Sabbath or Lord’s Day they come together at Boston by ringing of a bell, about nine of the clock or before. The Pastor begins with solemn prayer, continuing about a quarter of an hour. The Teacher then readeth and expoundeth (or explained) a chapter. Then a Psalm is sung, whichever one the ruling Elder dictates. After that the Pastor preacheth a Sermon, and sometimes extempore exhorts (that is, urges them to lead good lives). Then the Teacher continues with a prayer and a blessing.

“About two in the afternoon they repair to the meeting-house again; and the Pastor begins, as before noon, and a Psalm being sung, the Teacher makes a Sermon. He was wont, when I came first, to read and expound a Chapter also before his Sermon in the afternoon. After and before his Sermon he prayed. After that followeth Baptism, if there be any, which is done by either Pastor or Teacher, in the Deacon’s seat, the most eminent place in the Church, next under the Elder’s seat. The Pastor most commonly makes a speech or exhortation to the Church and parents concerning Baptism, and then prayeth before and after. It is done by washing or sprinkling. One of the parents being of the church, the child may be baptized.

“Which ended, follows the contribution, one of the Deacons saying, ‘Brethren, of the congregation, now there is time left for contribution, wherefore as God hath prospered you, so freely offer.’

Upon some extraordinary occasions, as building and repairing of Churches and meeting-houses or other necessities, the Ministers press a liberal contribution, with effectual exhortations out of Scripture. The Magistrates and chief gentlemen first, and then the Elders, and all the congregation of men, and most of them that are not of the Church, all single persons, widows, and women in the absence of their husbands come up one after another one way, and bring their offerings to the Deacon at his seat, and put it into a box of wood for the purpose, if it be money or papers; if it be anything else, they set it or lay it down before the deacons, and so pass another way to their seats again."

1. At what time did the church bell ring in the morning?
2. Did they go to church again in the afternoon?
3. Who baptized the children?
4. Who received the offerings and contribution?

The Arrangement of a New England House.

THE larger part of the best of the early houses of New England were probably much like the first permanent homestead of the Gallups. The high-placed and deep-seated windows were scant in number, heavily barred, and narrow. It was only the wealthy who at this time could afford the luxury of glass. Oiled paper was the usual substitute. To exclude the cold were heavy and close wooden shutters both outside and inside. During the coldest weather it must have been necessary to depend for light, even in the daytime, upon open fires, pine knots, and candles, for at least the first decade or two in each new settlement.

In the center of the house rose the great stone chimney, with wide-throated fireplaces opening into three large rooms on the first story and into four upon the second story. The unplastered and paintless ceilings were low, but higher than was usual, for John Gallup is said to have stood six feet four inches in his gray knit hose, and had to bow his stately head to enter any doorway save his own.

The second story on the two longer sides projected considerably beyond the lower. In view of the constant danger from Indians, it is probable that this house was intended to be used as a fortress in case of necessity, and this projection may have been made for the sake of affording a coign of vantage to its inmates if attacked by savages.

The third story was but a big garret with windows in each end. Beneath all were deep cellars for the storage of winter supplies, and for the manufacture and ripening of home-brewed beer, made after recipes brought from the mother country. At first, cider had no place in those cellars, but after the orchards had grown, there was found room for the barrels of hard cider which were made from them, and which finally quite displaced the heavier and perhaps more wholesome, certainly less stimulating, beer. In the cellars were also kept, even from the first, the casks of metheglin, made from the plentiful honey of the wild bee, which in the autumn filled the place with the sound of its working like the swarming of armies of bees.

In the broad and high-peaked garret were set the heavy looms at which, during all the long summer days, either men or women, as the case might be, were diligently weaving the coarse stuff which must serve young and old, master and man, mistress and maid, for all the rougher occasions of pioneer life.

1. What was often used as a substitute for glass windows?
.....
2. In what part of the house was the stone chimney usually located?
3. What two words tell whether the ceilings were plastered or painted?
4. In what part of the house were the looms?

How the Housewives Prepared for Winter.

THE making of a portion of the autumn's crop of apples into dried apples, apple sauce, and apple butter for winter was preceded in

many country homes by an apple paring. The cheerful kitchen of a farmhouse was set with an array of empty pans, tubs, baskets; of sharp knives and heaped-up barrels of apples. A circle of laughing faces completed the scene, and the barrels of apples were quickly emptied by the many skilful hands. The apples intended for drying were strung on linen thread and hung on the kitchen and attic rafters. The following day the stout crane in the open fireplace was hung with brass kettles which were filled with the pared apples, sweet and sour in proper proportions, the sour at the bottom since they required more time to cook. If quinces could be had, they were added to give flavor, and molasses, or boiled-down pungent "apple molasses," was added for sweetening. As there was danger that the sauce would burn over the roaring logs, many housewives placed clean straw at the bottom of the kettle to keep the apples from the fiercest heat. Days were spent in preparing the winter's stock of apple sauce, but when done and placed in barrels in the cellar, it was always ready for use, and when slightly frozen was a keen relish. Apple butter was made of the pared apples boiled down with cider.

The housewives pickled samphire, fennel, purple cabbage, nasturtium buds, green walnuts, lemons, radish pods, barberries, elder buds, parsley, mushrooms, asparagus, and many kinds of fish and fruit. They candied fruits and nuts, made many marmalades and jellies, and a vast number of fruit wines and cordials.

Perhaps the busiest month of the year was November,—called "killing time." When the chosen day arrived, oxen, cows, and swine which had been fattened for the winter's stock were slaughtered early in the morning, that the meat might be hard and cold before being put in the pickle. Sausages, rolliches, and headcheese were made, lard tried out, and tallow saved.

1. In what rooms did they string apples for drying?
2. Could they prepare the winter's stock of apple sauce in a day?
3. In what month was "killing time"?
4. Why did they kill early in the morning?



In New Amsterdam—Director-General Peter Stuyvesant gives way to fury as the Councilors urge him to accept the English terms for surrendering the Colony of New Netherlands.

(From "Peter Stuyvesant," one of The Chronicles of America Photoplays)

A Dutch Home.

THE houses were built with long sloping roofs, and, if possible, on a hillside so that the front stoop was approached by a few steps, but the kitchen door at the back of the house was always flush with the ground. It was wide and high and was built in this way to allow of a horse being driven in every morning hauling, by means of a long iron chain, a huge block log, which made the foundation of the fire that was never allowed to die out entirely. Everyone went in and out of the kitchen door, except on occasions of ceremony. The front parlor was a sacred apartment that was kept tightly closed except on gala days, and woe to the mouse or the "kackerlack" (cockroach) that entered it. On the opposite side of the hall, that always ran from the front to the rear of the house, was the family sitting room. The bedrooms were large and filled with ponderous mahogany bureaus and four-post bedstead under which was an "een slaapbauck op rollen" or trundle-bed, which was pulled out at night and into which was tucked from two to four children. The lower classes used great boxes with boarded bottoms for beds, which were filled with sacks of hay, corn silk, or dried leaves. A great brass warming pan usually hung on the walls.

The children of the first settlers were well trained in household duties, as was needful in a place where there were few servants, and each woman undertook much of her own housework. The boys were made to carry water from the well or run errands to the woodhouse, the smokehouse, and the brine barrel in the cellar. The girls had their daily "stint" inside the house, and as there was always "a stretch" on the loom, an idler was often set to "do a yard" as a punishment. Every maiden, whatever her station in life, was thoroughly instructed in the details of housekeeping, and she was not considered eligible for matrimony until she could show her "kos" full of linen, spun and woven by herself, and daintily marked with her initials in cross-stitch.

1. What was hauled into the kitchen every morning?
2. Where was the trundle-bed kept during the day?

3. Did the boys and the girls have to help with the work?
4. In what way was every maiden thoroughly instructed?
-

How the Dutch Told People by Their Dress.

EACH official had his distinctive costume. Laborers wore a dress that did not impede them in their work. They never wore long coats—those were reserved for the upper classes; but every workman and craftsman donned long leather aprons both in the house and on the street. One corner of it was invariably tucked under the belt when the wearer was not working, but otherwise it fell nearly to his feet. The leather was often dyed red with the bark of chestnut or oak tree.

The peasantry pushed their hair straight back, and covered it with a close-fitting cap. The usual dress was a "short gown and petticoat" and it was the pride of the thrifty housewife to have spun and woven the stuff for these skirts herself. They were generally of linsey-woolsey of the natural grey color, but were sometimes dyed blue with a mixture of red-maple bark and copperas, or the stuff was colored red with alder bark. These dyes had been taught to the Dutch women by the squaws. By these distinctive dresses each class could be distinguished. Even the crafts could be noted, and the married women were recognized at a glance from the maidens.

From the side of the matron always hung a *chatelaine*, sometimes of gold and handsomely ornamented, but more frequently of brass with steel chains, from which dangled keys, scissors, pin cushions, and a tiny case called a housewife (and pronounced *hussuf*) containing thimble, needles, and bodkin. The church book, with corners and clasps of gold and silver, also hung by long chains to match, from the *chatelaine* or girdle.

When the good people put on their best clothes they could be very fine, and the stuffs of which they were made were of the handsomest and richest materials. The coats of the men were of velvet, silk, or satin, trimmed with handsome lace, diamond buckles, and sometimes with rare furs. Around their throats were wrapped yards of

fine muslin trimmed with lace, which were called "steinwicks" after the gallant soldier of that name; and the ladies were by no means behind their husbands in the richness of their apparel.

1. What classes of people wore long coats?
2. What kind of an apron did the workmen wear?
3. Was the dress of the married women different from that of the single women?
4. Did the Dutch wear plain clothes all the time?

How the Dutch Children Amused Themselves.

IF ever young people lived happy lives and had especially good times on extra occasions, the Dutch boys and girls in both Old and New Netherlands certainly did. Holland is the land of Santa Claus and dyed Easter eggs. Besides the patron saint's day of December 6, there were Christmas, New Year's Day, Twelfth Night, Easter, Pinxter, Thanksgiving Day, Kermis, and school holidays and feast days coming pretty steadily along throughout the year.

Games with ball, bat, stilts, hoop, top, sling, swing, bow and arrow, sleds and skates, drums and trumpets; tennis, golf, cricket, and forty other ways of having a good time, besides the easy things for girls and the more or less athletic sports for boys are pictured as part of the young people's life.

Holland is the land of skates and sleighs. Children and young people hardly learn to skate; they begin it naturally and keep it up all their lives. Whether for fun and in parties, or to go to the market, to church, to weddings or funerals, they move by rapid transit on steel. A pair of skates is a passport to comradeship. No need of music or a band! With rhythm in every motion, parties of young folks in everyday clothes glide over the ice, motored from within. Every habit and each trick known on Holland canals or ponds was reproduced on the Mohawk and the Hudson.

Then there was the ice-yacht or sailboat on runners, sometimes reduced for swiftness to a long plank with crosspieces for seats and with skate irons. Equipped with mast, canvas, and some cordage it

seemed to race with the wind itself. On the ice, lady or lass sat in a hand sleigh, while husband or swain pushed as he skated. Newburgh-on-the-Hudson and Albany and the hills of Dorp were famous for coasting, and the North River for ice-yachts.

When we look at our vocabulary and read of "sleigh," "sled," "skate," "ice-yacht," "stove," we realize how much we owe the Dutch in the way of winter fun and comforts. They brought these things with them from their old homes, and put them in use at once.

1. Did the Dutch boys and girls have holidays?
2. Did they have plenty of games to play?
3. On what two rivers in New Netherland did the Dutch have their ice sports?
4. Did they coast on the hills as well as on the ice?

The Fate of Henry Hudson.

It was a Sunday morning. The captain and crew of the *Discovery* had spent the winter in Hudson Bay. Very little food was left for the homeward voyage, and though each man had his share, it was rumored that Hudson was keeping some of it back. All through the winter and spring a mutinous spirit had been growing.

When Hudson went on deck in the morning he was seized from behind and his arms were pinioned. "What does this mean?" he asked. "You will know when you are in the shallop" was the reply.

During the night a dastardly plot had been hatched. Pricket says that Greene and the other conspirators had come to him while he was in his bunk and had told him what was afoot. He protested but was told roughly that if he tried to interfere he would share the captain's fate. The plot was to seize the ship and turn Hudson adrift in the shallop along with his son, the sick men, who would be only a burden to the mutineers, and one or two others whom the mutineers disliked and mistrusted.

Only one of the men whom the mutineers invited to join them refused to fall in with their heartless plans. Philip Staffe, the carpenter, who despite his quarrel with Hudson at the beginning of the

winter had been of a cheerful spirit and good courage throughout all the dangers and hardships of the voyage, upbraided Greene and the other plotters to their faces and said that rather than be a party to their scheme he would throw in his lot with the captain. And so he did. He got of them a gun and powder and shot, and some pikes, an iron pot, with some meal and other things.

Then the mutineers sailed out of the ice, the shallop being fast to the stern of the ship. When about clear of the ice, they cut the shallop from the stern of their ship and sailed away. They came to an island and anchored. Here they lay that night and the best part of the next day, in all of which time they did not see the shallop, nor did they ever see it again.

1. Was the *Discovery* well provisioned for the homeward voyage?
2. Who was captain of the *Discovery*?
3. How many men refused to join the mutineers?
4. Did the mutineers leave Hudson on shore?

The Beginnings of New York City.

PETER MINUIT, the first civil governor of New Netherland, received his commission six days before Christmas, 1625. He began at once to equip himself for his great work of transforming trading stations into agricultural communities. He found out all he could about the soil and climate of New Netherland. Then he selected carefully seeds, live stock, farmers' tools, food plants, and other useful vegetables. He sailed from Amsterdam December 19 and after many delays from contrary winds and other causes, he sighted Sandy Hook on May 4.

Minuit's first official act was to call together the Indian chiefs and purchase of them the island named Manhattan, for what was to them the very generous sum of 60 guilders, or 24 dollars. In modern values, this would be about 300 dollars. As expressed in trinkets, mirrors, hatchets, tools, and clothing stuffs, it must have seemed like a mountain of wealth to the Indians. The place of sale

may have been the Bowling Green, then the heart of the hamlet of New Amsterdam.

A fort must be built for defense, as the ships of any nation could easily enter the river from the sea, a fact which made New Amsterdam from the very first a cosmopolitan place, filled with visitors and sailors speaking many languages. One of the Dutch army engineers, who then had no superiors in the world, laid out and began building an earthwork with four bastions, named Fort Amsterdam after the home city.

If Governor Minuit had been allowed to continue the development of New Netherland according to his own ideas, its story might have been one of nearly continuous peace and prosperity. He wisely distributed among white men the seeds and grafts which caused gardens to grow and orchards to spring up. He inaugurated the enterprise of shipbuilding. He launched a magnificent ship, pierced for thirty cannon, which was loaded and sent to Holland where it made a sensation. His chief concern, next to securing the comfort and safety of the colonists, was the fur trade, and many were the ships loaded with peltries which he sent to Amsterdam. In 1630 the imports amounted to 113,000 guilders, while exports, chiefly furs, were 130,000 guilders, making a handsome profit to the Company.

1. Was Peter Minuit interested in promoting agriculture?
2. How much did he pay the Indians for Manhattan?
3. What was the name of the Fort they built?
4. What did they send to Amsterdam in ships?

What the Dutch Learned from the Indians.

THEY studied the habits of their wild neighbors and were not too proud to learn from them their secrets of dyeing, preparing tobacco, or planting maize. The time for this, according to the Indians, was when the birch-tree leaf was the size of a mouse's ear. The savages taught the settlers their fashion of pounding corn into "hominy," which was the Indian name for cracked corn. It was done by mak-

ing a hole in the stump of a tree, or in a rock, into which the kernels were thrown and then beaten with a heavy pestle. A round excavation in a promontory overlooking Fairfield, Conn., is still called Samp-Mortar Rock, samp being another name for ground corn; and tradition declares that the spot was always resorted to, in the autumn, by the squaws, for the purpose of pounding their corn, which was done to a musical croon that kept time to the thud of the pestle.

The Indians were, at most times, freely admitted in small companies within the "palisadoes" of the little burgh, and they brought many commodities to barter. They were cunning weavers of baskets that were waterproof, made of a species of dogbane, and could make candles and soap of bayberries, or brushes from a block of oak, which they ingeniously split into thousands of bristles.

The wild people were not pleasant companions, as they followed a native custom of rubbing "oil of Fishes, Fat of Eagles, and Grease of Rackoons" on their skin to keep it from blistering and repel the attacks of gnats and mosquitoes. They seldom washed their bodies or even their faces and hands, and in consequence the Dutch housewives, who were neatness personified, thought they were irreclaimable savages, and although invariably kind to them, did not encourage them to take up their abode within the settlement except under certain restraints.

The Indians taught the settlers to look for the great annual flights of pigeons, which early in April always flew north to eat the wild carrot. This flight invariably took place at dawn and never after 10 o'clock in the morning. It was so heavy as to darken the sun, and so low that stones, clubs, and like missiles were thrown at the birds, which were slaughtered by thousands.

Almost every household had one or more of the wild men or women hanging around the kitchen fire. They never made good servants, but would do "chores" for the housewives, such as cutting and piling the kindling wood, or lifting heavy kettles on the great swinging cranes, in return for food and a lodging in the barn or under the back stoop.

1. What did the Indians call their cracked corn?
2. Name three things that the Indians could make.
.....

3. Were the Indians encouraged to live within the settlement?
.....
4. Was it a common thing for the Dutch housewives to have
Indians do chores for them?

Stuyvesant's Doings after the Surrender.

AFTER the surrender of New Netherland the government of Holland summoned Stuyvesant home to give an account of what had happened. He arrived there in October, 1665, and presented to them a written report. He had left everything, including his beloved wife, to tell them "the true state of the case."

In this report he said that on his arrival many years before he had "found the country stripped of inhabitants to such a degree that, with the exception of the three English villages, there were not 50 farms and plantations on it, and the whole province could not muster 250, at most 300 men capable of bearing arms. The fortress of New Amsterdam resembled a molehill rather than a fortress, without gates, the walls and bastions trodden under foot by men and cattle."

"Our powerful neighbors and enemies," he said, "found themselves reinforced by four royal ships, crammed full with an extraordinary amount of men and warlike stores. Our enemies throughout the whole of Long Island, both from the east and from the villages belonging to us united with them, hemmed us by water and by land, and cut off all supplies. Powder and provisions failing, and no relief nor reinforcement being expected, we were forced to come to terms with the enemy, not through neglect of duty or cowardice, but because of an absolute impossibility to defend the fort, much less the city of New Amsterdam, and still less the country. On surrendering to the enemy, not 90 bushels of breadstuffs, and much less of peas and meat were remaining in store. This scarcity was caused by the exportation of provisions to the island of Curaçao in South America about three weeks previous to the arrival of the frigates."

He went on to say, "A general discontent and unwillingness to assist in defending the place had become manifest among the people.

This was occasioned and caused in no small degree, first among the people living out of the city, and next among the burghers, by the sending of proclamations and open letters containing promises, in the name of the King of England, to burgher and farmer, of free and peaceable possession of their property, unobstructed trade and navigation, not only to English dominions, but also to the Netherlands with their own ships and people."

After he had made this report, Stuyvesant did not remain long in Holland, but returned to his wife and family. He lived on his farm called the Great Bouwery till his death in February, 1672.

1. Why did Stuyvesant go to Holland in 1665?
2. What did he say about the fortress of New Amsterdam?
3. Did he admit any neglect of duty or cowardice?
4. Were the Dutch people much concerned about defending New Amsterdam against the English?

How the Dutch Made a Treaty with the Indians.

"TRADE was doing very badly in the colony" so in 1634 four Dutchmen set out from Fort Orange for the Iroquois country to see what they could do about it. This is the story of what happened in one of the villages where they stopped:

"January 3—Some old men came to us and told us they wanted to be our friends and they said we need not be afraid. And I replied that we were not afraid. In the afternoon the council sat here—in all, twenty-four men—and after considerable consulting for a long while an old man approached me and laid his hand upon my heart to feel it beat; and then he shouted that we really were not afraid at all.

"After that six more members of the council came and they presented me with a coat made of beaver skin and they told me they gave it to me because I came here and ought to be very tired, and also because I had been marching through the snow. And when I took the coat they shouted three times, 'Netho, Netho, Netho!'

which means, 'That is very well!' And directly after that they laid five pieces of beaver skins on my feet, at the same time requesting me that in the future they should receive four hands of seawan and four handbreadths of cloth for every big beaver skin. They said, 'We have to go so far with our skins; and very often when we come to your places we do not find any cloth or seawan or axes or kettles, or not enough for all of us, and then we have much trouble for nothing, and have to go back over a great distance, carrying our goods back again.'

"After we sat for a considerable time, an old man came to us and translated what they had said in the other language and told us that we did not answer yet whether or not they were to have four hands of seawan for their skins. I told him that we had not the power to promise that, but that we should report about it to the chief at the Manhatans, who was our commander, and that I would give them a definite answer in the spring, and come myself to their land.

"Then they said to me, 'Welsmachkoo.' You must not lie, and must surely come to us in the spring, and report to us about it all. And if you will give us four hands of seawan we will not sell our skins to anyone but you.' After that they gave me five beaver skins, and shouted as hard as they could, 'Netho, Netho, Netho!' And then, that everything should be firmly binding they called or sang something in Indian language which meant that I could go in all the places they mentioned—they said the names of all the castles—freely and everywhere. I should be provided with a house and a fire and wood and everything I needed; and if I wanted to go to the Frenchmen they would guide me there and back; and they made a present of another beaver skin to me. Today we ate bear meat that we were invited to."

1. Did the Indians receive the four Dutchmen in a friendly manner?
2. How many hands of seawan did the Indians want for a big beaver skin?
3. Did the Dutchmen promise to give the Indians what they asked?
4. When did the spokesman for the Dutchmen say he would come again?

What the Exiled Acadians Were Really Like.

THE Acadians were a simple and very ignorant peasant folk, industrious and frugal till evil days came to discourage them; living apart from the world, with little of that spirit of adventure which an easy access to the vast fur-bearing interior had developed in their Canadian relatives; having few wants, and those of the rudest; fishing a little and hunting in the winter, but chiefly employed in cultivating the meadows along the River Annapolis, or rich marshes reclaimed by dikes from the tides of the Bay of Fundy.

The British Government left them entirely free of taxation. They made clothing of flax and wool of their own raising, hats of similar materials, and shoes or moccasins of moose and seal skin. They bred cattle, sheep, hogs, and horses in abundance; and the valley of the Annapolis, then as now, was known for the profusion and excellence of its apples. For drink, they made cider or brewed spruce beer. French officials describe their dwellings as wretched wooden boxes without ornaments or conveniences, and scarcely supplied with the most necessary furniture. Two or more families often occupied the same house; and their way of life, though simple and virtuous, was by no means remarkable for cleanliness. Such as it was, contentment reigned among them.

This humble society had its disturbing elements, for the Acadians, like the Canadians, were a quarrelsome race. Neighbors often quarreled about their boundaries. There was a bountiful share of jealousy, gossip, and back-biting to relieve the monotony of their lives. Every village had its curé, the guide, counselor, and ruler of his flock. He was their true government; to him they gave a frank and full allegiance, and dared not disobey him if they would. He taught them to be true to their wives and constant at confession and mass, to stand fast for the Church and King Louis, and to resist heresy and King George.

1. What was the chief occupation of the Acadians?
2. For what crop was the valley of the Annapolis known?
.
3. According to French officials, what were their houses like?
.
4. Who was the leader of the village?

Washington's Adventures in the Ohio Country in 1753.

IN the middle of November, Washington struck into the wilderness with Christopher Gist as a guide, Van Braam, a Dutchman, as interpreter, Davison, a trader, and four woodsmen as servants. They went to the forks of the Ohio, and then down the river to Logstown. There Washington had various parleys with the Indians; and then, after various delays, continued his journey towards Fort Le Boeuf, accompanied by the friendly chief called the Half-King and by three of his tribesmen. For several days they followed the traders' path, pelted with unceasing rain and snow. Through marshes and swamps, forests choked with snow, and drenched with rain, they toiled on till the wooden walls of Fort Le Boeuf appeared at last. Here Washington delivered to the French commander Dinwiddie's letter.

The French commander took three days to frame the answer. Then Washington set out on his return trip. He found the horses so weak that he left them and their drivers in charge of Van Braam and pushed forward on foot, accompanied by Gist alone. Each was wrapped to the throat in an Indian "matchcoat" with a gun in his hand and a pack at his back. Passing an old Indian hamlet called Murdering Town, they had an adventure which threatened to make good the name. A French Indian, whom they met in the forest, fired at them, pretending that his gun had gone off by chance. They caught him, and Gist would have killed him; but Washington interposed and they let him go. Then, to escape pursuit from his tribesmen, they walked all night and all the next day. This brought them to the banks of the Alleghany. They hoped to have found it dead frozen; but it was alive and turbulent, filled with ice sweeping down the current. They made a raft, shoved out into the stream, and were soon caught helplessly in the drifting ice. Washington, pushing hard with his setting pole, was jerked into the freezing river; but caught a log of the raft and dragged himself out. By no efforts could they reach the farther bank, or regain that which they had left; but they were driven against an island, where they landed and left the raft to its fate. The night was excessively cold, and



George Washington, newly commissioned Lieutenant Colonel, in command of Virginia troops marching against the French on the Ohio, April, 1753.

(From "The Gateway to the West," one of The Chronicles of America Photoplays)

Gist's feet and hands were badly frostbitten. In the morning, the ice had set and the river was a solid floor. They crossed it, and succeeded in reaching the house of the trader Fraser, on the Monongahela. It was the middle of January when Washington arrived at Williamsburg and made his report to Dinwiddie.

1. Where was the French commander to whom Washington wanted to deliver a letter?
2. Who wrote the letter?
3. Why was it hard to cross the Alleghany River?
4. How long did it take Washington to go and return?

Madeleine at Bay.

IN 1689 the Iroquois had wiped out the little settlement of Lachine. The French therefore in this part of Canada about Montreal were constantly fearful of another such tragedy. The little forts and settlements along the St. Lawrence and opposite the Iroquois country were naturally constantly threatened by an Indian attack.

One brooding day in October, when Captain de Vercheres was on duty at Quebec, and his wife obliged to be in Montreal, his tiny fort at Vercheres was garrisoned by three men, two boys, and one girl. The eldest man was over eighty. The Vercheres boys were ten and twelve; their sister, Madeleine, fourteen. Suddenly from the crimson forest came a burst of musketry. Then, through the smoke, came fifty yelling Iroquois. Madeleine instantly ran in and barred the gate, put on a soldier's hat, took up her musket, armed both her brothers, and saw that they and all three men were properly posted at once. As quickly, she fired the single cannon both to make the Iroquois think the fort well defended and to warn any habitants near by. Presently a family appeared at the river landing, between which and the fort there was a fire zone of a hundred yards. Madeleine ran out and shepherded these people in, the Iroquois not venturing to break cover under that cannon's mouth.

For a whole week the dauntless Madeleine kept the murderous savages at bay. The word "All's well!" was duly shouted round the little fort, just as if it held a real garrison. Half the defenders were always on the watch; and no Iroquois could show himself without drawing fire. On the sixth day the news reached Montreal; and on the seventh Lieutenant de la Monnerie arrived with forty men. Madeleine, then not on actual guard, was dozing, with her musket on her knees, when her sentry challenged "*Qui vive?*" "French: la Monnerie and forty men." Madeleine was all alert, and ready with the regulation word: "Advance one, and give the counter-sign!" When Monnerie complied she at once saluted saying, "Sir, I hand over my command to you." Then, after he and she had made grand rounds together, and he had found everything in perfect order, she again saluted and asked the proper question in the proper way: "Sir, can you now relieve the guard? We've been on duty for a week."

1. How old was Madeleine at the time of the attack described?
.....
2. How many people were in the fort?
3. How long did they have to wait for help?
4. What were the Indians afraid of?

The Attack on Deerfield in the Winter of 1704.

DEERFIELD kept early hours, and it is likely that by 9 o'clock all were in their beds. There was a patrol inside the palisades, but there was little discipline among these soldiers; the watchers grew careless as the frosty night went on; and it is said that toward morning they, like the villagers, betook themselves to their beds.

The French commander and his men, savage with hunger, lay shivering under the pines till about two hours before dawn; then, leaving their packs and their snowshoes behind, they moved cautiously toward their prey. No alarm was given until they had mounted the palisade and dropped silently into the unconscious village. Then with one accord they screeched the war whoop, and

assailed the doors of the houses with axes and hatchets. The hideous din startled the minister, Williams, from his sleep. Half-awakened, he sprang out of bed, and saw a crowd of savages bursting through the shattered door. Amid the screams of his terrified children, three of the party seized him and bound him fast; for they came well provided with cords, since prisoners had a market value. Nevertheless in the first fury of their attack they dragged to a door and murdered two of the children and a negro woman who was probably their nurse.

Meanwhile the Indians and their allies burst into most of the houses, killed such of the men as resisted, butchered some of the women and children, and seized and bound the rest. Some of the villagers escaped in the confusion. The sun was scarcely an hour high when the miserable drove of captives was conducted across the river to the foot of a mountain or high hill. Williams and his family were soon compelled to follow, and his house was set on fire. As they led him off he saw that other houses within the palisade were burning, and that all were in the power of the enemy except that of his neighbor Stebbins, where the gallant defenders still kept their assailants at bay. Having collected all their prisoners, the main body of the French and Indians began to withdraw toward the pine forest where they had left their packs. Several parties still lingered in the village, firing on the Stebbins house, killing cattle, hogs, and sheep, and gathering such plunder as the place afforded.

1. Were the soldiers on guard very watchful?
2. At what time of day did the French attack?
.....
3. Were women and children killed?
4. Were all the men either killed or taken prisoners?

The Beginning of Wolfe's Career as a Soldier.

JAMES WOLFE and his brother were delicate, sensitive lads, needing and receiving the watchful care of their tall, dark-haired mother, left much alone as is the common lot of a soldier's wife. One seems to see the slender, alert, eager-faced children scampering through

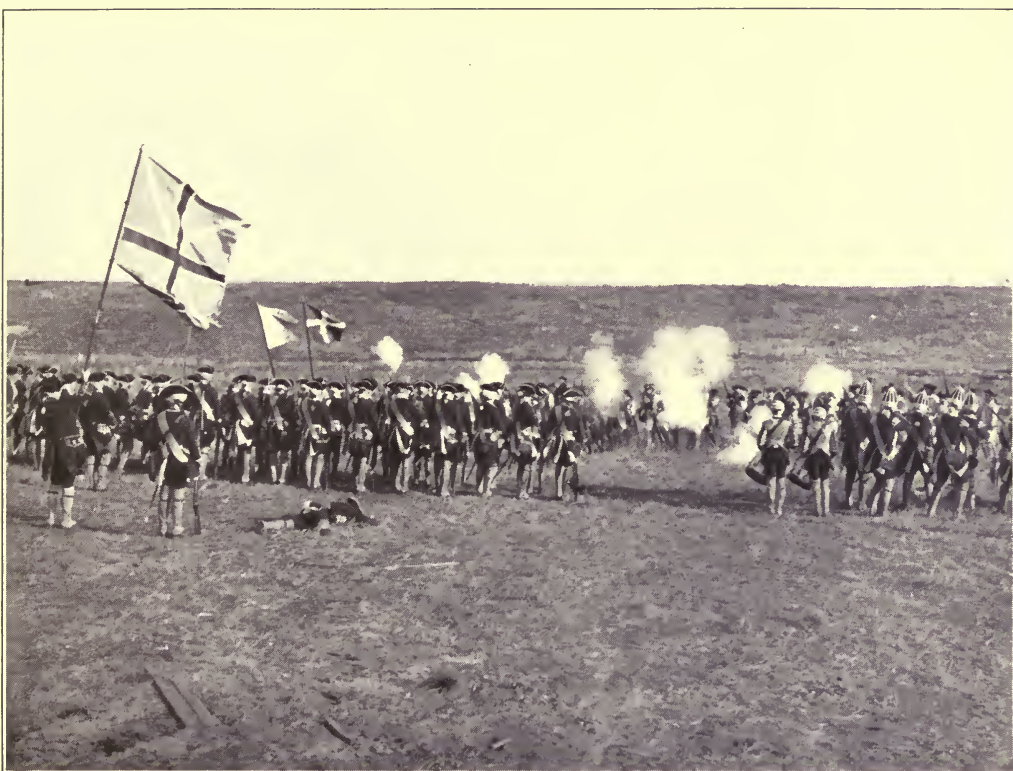
the house, frolicking in the garden with the dogs, playing hide-and-seek in the coach house and stables, fishing for minnows in the brook or sailing a miniature fleet of ships upon its waters. Again, seated in the hall, they are receiving instruction at their mother's knee; or, gathered in the evening about the great fireplace, are listening, open-eyed and open-mouthed to the stout, grim Colonel, their father, while he tells them stories of his campaigns with Marlborough and Prince Eugene.

To a school in Westerham, kept by a teacher named Lawrence, the Wolfe boys were sent, in common with other gentlemen's sons. Here James formed one boyish friendship which was to last through his life. Together he and his friend roamed the Kentish countryside on horseback or with their dogs; fought mimic battles, solved problems in strategy and participated in deadly ambushes.

A few days before James's fifteenth birthday, the school having broken up for the Christmas holidays, James had ridden over to Westerham for a few days under his friend's roof. One morning the sound of the post horn was heard at the gates, and a few moments later the squire (the father of his friend) was seen coming along the graveled path, in his hand a large official packet addressed to "James Wolfe, Esq." The lads ran to meet him, and James quickly tore open seal and envelope, disclosing a commission signed by King George II and countersigned by Lord Harrington, appointing him second lieutenant in his father's regiment of marines. It was dated, "St. James's, Nov. 3rd, 1741." One can see the two lads locked in an embrace, and the honest squire shaking his guest's hand, roundly congratulating him on the commencement of a career. Beneath the tall trees where this incident occurred stands a monument on which one may read:

"Here first was Wolfe with martial ardour fired,
Here first with glory's brightest flame inspired;
This spot so sacred will for ever claim
A proud alliance with its hero's name."

1. What title had Wolfe's father?
2. Where did Wolfe go to school?
3. How old was he when he received a commission?
4. To whose regiment was he appointed?



On the Plains of Abraham the British under Wolfe and the French under Montcalm come face to face—brave men, well matched, fighting for their countries' future in a distant land. (It is interesting to note the close formation, point-blank style of fighting used in those days.)

(From "Wolfe and Montcalm," one of The Chronicles of America Photoplays)

The Boyhood of Montcalm.

MONTCALM was born in the south of France, at the Chateau of Candiac, near Nimes, on the 29th of February, 1712. At the age of six he was placed in charge of a man named Dumas, who ruled his pupil stiffly; and before the age of fifteen, gave him a good knowledge of Latin, Greek, and history. Young Montcalm had a taste for books, continued his reading in such intervals of leisure as camps and garrisons afforded, and cherished to the end of his life the ambition of becoming a member of the French Academy (a group of learned men). Yet, with all his liking for study, he sometimes revolted against the sway of his teacher, who wrote letters of complaint to his father.

The main difficulty was to make him write a good hand,—a point in which he failed to the day of his death. So hard was he to get along with at times, that his master despaired. "M. de Montcalm," Dumas informs the father, "has great need of docility, industry, and willingness to take advice."

The pupil wrote to his father his own ideas of what his aims should be. "First, to be an honorable man, of good morals, brave, and a Christian. Secondly, to read in moderation; to know as much Greek and Latin as most men of the world; also the four rules of arithmetic, and something of history, geography, and French and Latin literature, as well as to have a taste for the arts and sciences. Thirdly, and above all, to be obedient, docile, and very submissive to your orders and those of my dear mother; and also to defer to the advice of M. Dumas. Fourthly, to fence and ride as well as my small abilities will permit."

At fifteen he joined the army as ensign in the regiment of Hainaut. Two years after, his father bought him a captaincy, and he was first under fire at the siege of Philipsbourg. His father died in 1735 (when he was but 23), and left him heir to a considerable landed estate, much embarrassed by debt.

1. Name three things which Montcalm had a good knowledge of before he was 15.
2. Was Montcalm ambitious to be a scholar?
3. How old was Montcalm when he joined the army?
4. How old was he when he became a captain?

How Washington Looked at the Time of the French and Indian War.

THE earliest known description of Washington was written in 1760 by his companion-in-arms and friend George Mercer, who attempted a "portraiture" in the following words: "He may be described as being as straight as an Indian, measuring six feet two inches in his stockings, and weighing 175 pounds when he took his seat in the House of Burgesses in 1759. His frame is padded with well-developed muscles, indicating great strength. His bones and joints are large, as are his feet and hands. He is wide shouldered, but has not a deep or round chest; is neat waisted, but is broad across the hips, and has rather long legs and arms. His head is well shaped though not large, but is gracefully poised on a superb neck. A large and straight rather than prominent nose; blue-gray eyes, keen and penetrating, which are widely separated and overhung by a heavy brow. His face is long rather than broad, with high round cheek bones, and terminates in a good firm chin. He has a clear though rather a colorless pale skin, which burns with the sun. A pleasing, benevolent though a commanding countenance, dark brown hair, which he wears in a cue. His mouth is large and generally firmly closed, but which from time to time discloses some defective teeth. His features are regular and placid, with all the muscles of his face under perfect control, though flexible and expressive of deep feeling when moved by emotion. In conversation he looks you full in the face, is deliberate, deferential and engaging. His voice is agreeable rather than strong. His demeanor at all times composed and dignified. His movements and gestures are graceful, his walk majestic, and he is a splendid horseman."

Writing to his London tailor for clothes in 1763, Washington directed him to "take measure of a gentleman who wears well-made clothes of the following size: to wit, 6 feet high and proportionably made—if anything rather slender than thick, for a person of that height, with pretty long arms and thighs. You will take care to make the breeches longer than those you sent me last, and I would have you keep the measure of the clothes you now make, by you, and if any alteration is required in my next it shall be pointed

out." About this time, too, he ordered "6 pairs Man's riding Gloves—rather large than the middle size" . . . and several dozen pairs of stockings, "to be long, and tolerably large."

1. According to the above description, how tall was Washington?
.....
2. What did he weigh?
3. What kind of a horseman did his friend call him?
.....
4. Where did Washington have his clothes made?
.....

Champlain's Account of How He and Two Companions Helped the Hurons Fight the Iroquois.

ON the 29th of July (1609) we met the Iroquois at 10 o'clock at night at the end of a cape that projects into the lake on the west side, and they were coming to war. Both parties encamped for the night, after agreeing to wait until daybreak to fight. After plenty of singing, dancing, and parleying with one another, daylight came. After arming ourselves with light armor, my two companions and I each took an arquebuse and went ashore. I saw the Iroquois come out of their barricade, nearly 200 men, strong and robust to look at, coming slowly towards us with a dignity and assurance that pleased me very much.

As soon as we were ashore the Hurons began to run about 200 paces towards their enemy, who were standing firmly and had not yet noticed my companions, who went into the wood with some savages. The Hurons began to call me with loud cries; and, to give me a passageway, they divided into two parts and put me at their head, where I marched about twenty paces in front of them until I was thirty paces from the enemy. They at once saw me and halted, looking at me, and I at them. When I saw them making a move to shoot at us, I rested my arquebuse against my cheek and aimed directly at one of the three chiefs. With the same shot two of them fell to the ground, and one of their companions, who was wounded and afterwards died. I put four balls into my arquebuse. When the

Hurons saw this shot so favorable for them, they began to make cries so loud that one could not have heard it thunder. Meanwhile the arrows did not fail to fly from both sides. The Iroquois were much astonished that two men had been so quickly killed, although they were provided with armor woven from cotton thread and from wood, proof against their arrows. This alarmed them greatly. As I was loading again, one of my companions fired a shot from the woods, which astonished them again to such a degree that, seeing their chiefs dead, they lost courage, took to flight and abandoned the field and their fort, fleeing into the depths of the woods. Pursuing them thither I killed some more of them. Our savages also killed several of them and took ten or twelve prisoners. The rest escaped with the wounded. There were fifteen or sixteen of our men wounded by arrow shots, who were soon healed. This place, where the charge was made, I named Lake Champlain.

1. What did Champlain call his gun?
2. About how many Iroquois Indians were there?
3. Who fired the first shot?
4. Where did the fight take place?

The Condition of the American Army at the Time Washington Took Command.

THE army was, as Washington himself said, "a mixed multitude." There was every variety of dress. Old uniforms, treasured from the days of the last French wars, had been dug out. A military coat or a cocked hat was the only semblance of uniform possessed by some officers. Rank was often indicated by ribbons of different colors tied on the arm. Lads from the farms had come in their usual dress; a good many of these were hunters from the frontier wearing the buckskin of the deer they had slain.

The volunteers varied greatly in age. There were bearded veterans of sixty and a sprinkling of lads of sixteen. An observer laughed at the boys and the "great great grandfathers" who marched side by side in the army before Boston. Occasionally a black face was seen in the ranks.

One of Washington's tasks was to reduce the difference in years and especially to secure men who could shoot. In the first enthusiasm of 1775 so many men volunteered in Virginia that a selection was made on the basis of accuracy in shooting. The men fired at a range of one hundred and fifty yards at an outline of a man's nose in chalk on a board. Each man had a single shot, and the first men shot the nose entirely away.

Undoubtedly there was the finest material among the men lounging about their quarters at Cambridge in fashion so unmilitary. In physique they were larger than the British soldier, a result due to abundant food and free life in the open air from childhood. Most of the men supplied their own uniform and rifles, and much barter went on in the hours after drilling. The men made and sold shoes, clothes, and even arms. They were accustomed to farm life and good at digging and throwing up entrenchments. The colonial mode of waging war was not, however, that of Europe. To the regular soldier of the time even earth entrenchments seemed a sign of cowardice. The brave man would come out in the open to face his foe.

1. How could you tell officers from privates?
2. What was the age of the youngest and oldest mentioned?
3. How did they select men in Virginia?
4. Who supplied most of the rifles?

New York's 'Tea Party.

ON April 21, 1774, the citizens received the following invitation: "To the Public: The sense of the city, relative to the landing of the East India Company's tea being signified to Captain Lockyer by the committee, nevertheless, it is the desire of a number of the citizens that at his departure from hence he should see, with his own eyes, their detestation of the measures pursued by the Ministry and the India Company to enslave this country. This will be declared

by the convention, and the people at his departure from this city which will be on next Saturday morning at 9 o'clock, when no doubt every friend to this country will attend. The bells will give the notice about an hour before he embarks from Murray's Wharf.

This is what happened, as told by someone who was present: "About 4 P.M. the ship came to the wharf when she was boarded by a number of the citizens. Captain Chambers was interrogated relative to his having the tea on board, but he still denied it. He was then told that it was in vain to deny it, for as there was good proof of its being on board, it would be found, as there were committees appointed to open every package, and that he had better be open and candid about it; and demanded the cocket for the tea; upon which he confessed it was on board and delivered the cocket. The owners and the committee immediately met at Mr. Francis's where Captain Chambers was ordered to attend. Upon examining him who was the shipper and the owner of the tea, he declared that he was the sole owner of it. After the most mature deliberation, it was determined to communicate the whole state of the matter to the people, who were convened near the ship; which was accordingly done. The Mohawks were prepared to do their duty at a proper hour; but the body of the people were so impatient that before it arrived, a number of them entered the ship about 8 P.M., took out the tea, which was at hand, broke the cases, and started their contents into the river, without doing any damage to the ship or cargo. Several persons of reputation were placed below to keep tally, and about the companion to prevent ill-disposed persons from going below the deck.

"At ten o'clock the people all dispersed in good order, but in great wrath against the Captain; and it was not without some risk of his life that he escaped."

1. Who was invited to New York's Tea Party?
2. What did Captain Chambers deny?
3. Who owned the tea?
4. Was the affair conducted in an orderly or disorderly manner?



The Minute Men of Lexington gather quickly as the drum
sounds the alarm.

(From "The Eve of the Revolution," one of The Chronicles of America Photoplays)

Mr. Temple's Buttons and the Declaration of Independence.

THE Tories spread a story of how the Americans came to declare their independence from Great Britain. It was about the great coat, or overcoat we should call it, of a gentleman who came to America from England.

It tells how a certain Mr. Temple, brother of Mr. John Temple, who was introduced as Consul General from Great Britain, landed from a British ship on our shores wearing a great coat conspicuously adorned with many beautiful brass buttons. Mr. Temple, though he came on a British mail packet, was regarded with suspicion by British agents in America such as Governor Tryon. He was thoroughly searched upon his arrival for evidences of an intention hostile to the King. He was allowed to land after the search had revealed nothing, even though the search was directed by such faithful servants of his Majesty as Governor Tryon, "who has as many eyes as Argus," Tryon's secretary, and General Skinner, Attorney General of New Jersey.

Then, according to the Tories, as soon as Mr. Temple had passed this inquisition, he hastened to leading representatives of America, winked, pointed to his buttons, called the Americans aside and then pried the buttons apart and brought forth a series of letters from Englishmen of note saying many nice things about the Americans and expressing many earnest wishes for their success in the contest with the King and his ministry, and telling them to stick it out a while longer until America's friends in England could upset Parliament and come to their aid.

Then, as the story continues, the delegates in Congress and all the statesmen became inspired by this promise of help from the old country and right away concluded that they should declare their freedom from the shackles of an old-world monarch. The strangest thing about it was that none of our statesmen knew the first thing about Mr. Temple's magic buttons, and that not the least reference to them appears in the utterances of our distinguished citizens who were proposing a separation from Great Britain.

1. Who is mentioned as a British agent in America?
2. How many people searched Mr. Temple?
3. According to the Tories, where did Mr. Temple have letters concealed?
4. Did American statesmen speak of having received these letters?

The Experience of a British Officer's Wife under Fire at Saratoga.

WE were obliged to descend into the cellar, where I laid myself in a corner near the door. My children put their heads upon my knees. An abominable smell, the cries of the children, and my anguish of mind, did not permit me to close my eyes during the whole night.

Eleven cannon balls passed through the house, and made a tremendous noise. A poor soldier who was about to have a leg amputated, lost the other by one of these balls. All his comrades ran away at that moment, and when they returned, they found him in one corner of the room in the agonies of death.

I was myself in deepest distress, not so much on account of my own dangers as of those to which my husband was exposed. He however frequently sent me messages inquiring after my health. Major Harnage's wife, a Mrs. Reyhell, the wife of a Lieutenant, the wife of the commissary and myself were the only officers' wives at present with the army.

We sat together, deploring our situation, when somebody entered. All my companions exchanged looks of deep sorrow, whispering at the same time to one another. I immediately suspected that my husband had been killed. I shrieked aloud, but was immediately told that nothing had happened to my husband. I was given to understand by a sidelong glance that the Lieutenant had been killed.

The danger in which my husband was, kept me constantly in the most unpleasant state of mind. I was the only one who had not lost her husband, or whose husband had not been wounded, and I asked myself very often, "Is so much happiness reserved for me alone?"

This reflection was the more natural, as he was day and night in

the very jaws of death. He never passed a whole night in his tent, but sat by the watchfires. This alone, considering the coldness and dampness of the ground might have been enough to kill him.

The want of water continued to distress us, and we were very glad to find a soldier's wife so courageous as to fetch some water from the river. This was an occupation from which the boldest might have shrunk, as the Americans shot everyone who approached it. They told us afterwards that they spared her on account of her sex. At last the capitulation was talked of, and a cessation of hostilities took place.

1. How many officers' wives were there?
2. Where did they stay during the fighting?
3. When someone entered, what did the officer's wife think?
.....
4. What trouble did they have to get water?
-

The Frenchmen and the Frogs.

WHEN the first French squadron arrived at Boston, the whole town, most of whom had never seen a Frenchman, ran to the wharves to catch a peep at the gaunt, half-starved crews. How much were my good townsmen astonished when they beheld plump, portly officers and strong, vigorous sailors!

Mr. Nathaniel Tracy, who lived in a beautiful villa at Cambridge, made a feast for the admiral and his officers. Everything was furnished that could be had in the country to ornament and give variety to the entertainment. Two large tureens of soup were placed at the ends of the table. The admiral sat on the right of Tracy and Monsieur de L'Etombe on the left. L'Etombe was consul of France, resident at Boston. Tracy filled a plate with soup, which went to the admiral and the next was handed to the consul. As soon as L'Etombe put his spoon into the plate he fished up a large frog, just as green and perfect as if he had hopped from the pond into the tureen.

Not knowing at first what it was, he seized it by one of its hind

legs, and, holding it up in view of the whole company, discovered that it was a full-grown frog. As soon as he had thoroughly inspected it, and made himself sure of the matter, he exclaimed, "Good Heavens! A frog!" then, turning to the gentleman next to him, gave him the frog.

He received it and passed it around the table. Thus the poor creature made the tour from hand to hand until it reached the admiral. The company, convulsed with laughter, examined the soup plates as the servants brought them, and in each was to be found a frog. The uproar was universal. Meantime Tracy kept his ladle going, wondering what his outlandish guests meant by such extravagant merriment. "What's the matter?" he asked, and raising his head, surveyed the frogs dangling by a leg in all directions. "Why don't they eat them?" he exclaimed. "If they knew the confounded trouble I had to catch them in order to treat them to a dish of their own country, they would find that with me, at least, it was no joking matter." He had caused all the swamps of Cambridge to be searched in order to furnish them with a generous supply of what he believed to be in France a standing national dish.

1. Who entertained the French officers?
2. Did the Americans know the French people well?
3. What were the French officers given to eat at the feast?
.....
4. Why did the American host have this food prepared for
them?
-

Washington's March from New York to Yorktown.

THE French marched on the right at the rate of about fifteen miles a day. The country was beautiful and the roads were good. Autumn had come and the air was bracing. The peaches hung on the trees. The Dutch farmers who four years earlier had been plaintive about the pillage by the Hessians now seemed prosperous enough and brought abundance of provisions for the army. They had just gathered their harvest. The armies passed through Princeton with its fine

college numbering as many as fifty students; then on to Trenton and across the Delaware to Philadelphia which the vanguard reached on the 3rd of September.

There were gala scenes in Philadelphia. Twenty thousand people attended a review of the French army. To one of the French officers the city seemed "immense" with its seventy-two streets "all in a straight line." The shops appeared to be equal to those of Paris and there were pretty women well dressed in the French fashion. Luzerne, the French Minister, gave a great banquet on the evening of the 5th of September. Eighty guests took their places at table, and as they sat down good news arrived. As yet few knew the destination of the army but now Luzerne read momentous tidings and the secret was out. Twenty-eight French ships had arrived in Chesapeake Bay; an army of three thousand men had already disembarked and was in touch with the army of Lafayette. Washington and Rochambeau were bound for Yorktown to attack Cornwallis. Great was the joy; in the streets the soldiers and the people shouted and sang, and humorists, mounted on chairs, delivered in advance mock funeral orations on Cornwallis.

Half the Americans and some of the French embarked at Elkton at the head of Chesapeake Bay, and the rest continued on foot. There was need of haste and the troops marched to Baltimore at the rate of twenty miles a day over roads often bad, and across rivers sometimes unbridged. At Baltimore further regiments were taken on board transports, and most of them made the final stages of the journey by water.

Washington left the army at Elkton and rode with Rochambeau, making sixty miles a day. Mount Vernon lay on the way, and here Washington paused for two or three days. It was the first time he had seen it since he set out on May 4, 1775, to attend the Continental Congress. Now he pressed on to join Lafayette. By the end of the month an army of sixteen thousand men, of whom about half were French, was besieging Cornwallis with seven thousand men at Yorktown.

1. How many miles a day did they march at first?
2. After they left Philadelphia how many miles a day did they march?

3. How many miles a day did Washington ride?
4. What had happened in Chesapeake Bay to give joy to the
soldiers and people of Philadelphia?
-

A Visit of Washington to His Mother after an Absence of Seven Years.

LATE in 1781, on the return of the combined armies from Yorktown, the mother of Washington was permitted again to see and embrace her illustrious son, the first time in almost seven years. As soon as he had dismounted, in the midst of a numerous and brilliant suite, after reaching Fredericksburg, he sent to tell her of his arrival, and to know when it would be her pleasure to receive him. Alone and on foot, the general in chief of the combined armies of France and America, the deliverer of his country, the hero of the age, repaired to pay his humble duty to her whom he venerated as the author of his being.

She was alone, her aged hands employed in the works of domestic industry, when the good news was announced, and it was further told that the victor-chief was in waiting at the threshold. She bid him welcome by a warm embrace and by the well-remembered and endearing name of George—the familiar name of his childhood; she inquired as to his health, remarked the lines which mighty cares and many toils had made in his manly countenance, spoke much of old times and old friends, but of his glory not one word.

Meantime, in the village of Fredericksburg, all was joy and revelry; the town was crowded with the officers of the French and American armies, and with gentlemen for many miles around, who hastened to welcome the conquerors of Cornwallis. The citizens got up a splendid ball, to which the matron was specially invited. She observed, that although her dancing days were pretty well over, she should feel happy in contributing to the general festivity, and consented to attend.

The foreign officers were anxious to see the mother of their chief. They had heard indistinct rumors touching her remarkable life and

character, but forming their judgments from European examples, they were prepared to expect in the mother that glitter and show which would have been attached to the parents of the great in the countries of the old world. Now were they surprised, when leaning on the arm of her son, she entered the room, dressed in the very plain, yet becoming garb worn by the Virginia lady of the old time. Her address always dignified and imposing, was courteous, though reserved. She received the complimentary attentions which were paid to her without evincing the slightest elevation, and at an early hour, wishing the company much enjoyment of their pleasures, observed that it was high time for old folks to be in bed, and retired, leaning as before on the arm of her son.

1. Where did Washington's mother live?
2. When he visited her, what did she talk most about?
.....
3. How did the citizens entertain Washington and his officers?
.....
4. Who are mentioned as being anxious to see Washington's mother?

The News of Burgoyne's Surrender.

ON a certain Sunday of late October in 1777 the people of Sharon, Connecticut, had gathered in the meeting house for the morning service. On this day both prayers and hymns seemed prophetic. When the text was announced, "Watchman, what of the night? The watchman saith, The morning cometh," its last three words rang out with such a clarion tone that all present felt that this was to be "a field day with the Parson." Today his flock thought him inspired as with faithful stroke he drew the picture of an oppressed people struggling for liberty against fearful odds. Tears ran unrestrained down his cheeks, until some of the older members began to wonder "what Parson could be thinking of, to discourage the people so?" Then suddenly his tone changed. "Our weakness," he said, "is the Lord's opportunity. He has permitted our humiliation that our sins might be punished and that He might show us that He

is mighty to save. He has promised to succor those who look to Him for help, and He is faithful who has promised." Then, kindling as with prophetic fire, his face glowing, his form dilating and quivering with feeling, he triumphantly exclaimed:

"Behold! the morning *now* cometh. I see its beams already gilding the mountain tops. Its brightness is already bursting over the land." He closed his Bible and stood with uplifted hand, while a silence fell alike upon the preacher and his hearers. Then, during the solemn hush which preceded the benediction, could be heard from afar the hasty clatter of a horseman dashing into the village from the north. Faces turn toward the doors, but not a whisper breaks the hush. All know that the sacred stillness of a New England Sabbath would not be thus broken without good reason. The eager horseman makes directly for the church. Hope is triumphant over fear, but with hope is mingled terror, and anxious eyes blaze out from pale faces as the rider, springing from his horse, enters the church, his spurs clanking along the uncarpeted floor and up the pulpit stairs.

The parson, his face flushing with the joy of a hope fulfilled, read only the three words, "Burgoyne has surrendered," and then burst into honorable tears. The next moment, calmed and solemn, he said, "Let us thank God for this great mercy." And moved by a common impulse, the whole congregation rose to the Puritan posture of prayer—the erect posture of the Ironsides, who prayed and fought and kept their powder dry; and stern and self-contained as they were, they thought it no shame to shed tears of thankfulness.

1. To whom did the horseman give his message to read?
.....
2. On what date did this news reach Sharon, Conn.?
.....
3. Was the parson preaching hope or discouragement?
.....
4. Did the rider come from north, south, east, or west?
.....

APPENDIX III

Books Used in Preparing the Set of Readings.

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On June 7, 1776, Congress assembled in Independence Hall
to vote on a resolution for independence.

*(From "The Declaration of Independence," one of The Chronicles of
America Photoplays)*

APPENDIX IV

Information Supplied in the Control Classes Because It Was in the Photoplays, but Not in the Textbooks.

The Pilgrims and Puritans in Massachusetts and Connecticut.

(The Pilgrims and the Puritans)

GORDY, page 53¹

James I Tries To Make the Puritans and Separatists Conform to the Church of England, page 54.

William Brewster, the able leader of the pious little flock of Scrooby Separatists, said, "Pomp and ritual and earthly show are not needed to worship him who was born in a stable—the simple book of His Word is the only test of religious truth."

The Separatists used to hold their meetings in Brewster's home but, inspired by the action of Church and State, their neighbors tried to break up these meetings. One of the Separatists was an impetuous youth named William Bradford who resented this treatment. The action of the neighbors enraged him, and on one occasion when the disturbance was so great that the High Sheriff of Nottingham was drawn to the scene, Bradford said to him, "Why do you shake the stave of the law in the face of peaceable folk? It is the graceless blasphemers who interfere with us that you should rebuke." The Sheriff warned the Separatists that they must conform to the rules of the Church or suffer the consequences, and in the bitter years that followed, persecution by both Church and State bore heavily upon the little group at Scrooby.

¹ Page references are in each case to Gordy's discussion of the topic which this material supplements.

The Pilgrims Sail to America Where They Can Have a Free Government and Their Own Religion, page 54.

A meeting was held in the Manor House at Scrooby, and plans were made for escaping to Holland. The dangers and difficulties that lay ahead of them proved too much for a few of their number and, at Brewster's suggestion, they withdrew from the meeting.

During 1607-1608 the Scrooby Separatists escaped to Holland, where at last were gathered more than one hundred men, women, and children.

The Hardships of the Voyage and Winter, Test Their Endurance, page 55.

The *Mayflower*, only 86 feet long, carried 102 passengers beside its crew.

During the first winter, it was necessary to level all the graves immediately, so that the watchful Indians might not learn how pestilence was weakening the colony.

By spring only six boys and twenty men were left who were able to bear arms.

The crew of the *Mayflower*, who at first had laughed and jeered at the Pilgrims, were stricken with pestilence, and were so impressed with the kind care given them that they did not want to leave the Pilgrims behind in such a bleak country. In spite of the pleadings of Captain Christopher Jones and the crew, none of the Pilgrims went back when the *Mayflower* sailed in the spring.

Friendly Relations are Established with the Indians, page 57.

Samoset, an Indian who had met Englishmen before, visited the colony asking for food and clothing. The kindly Pilgrims fed him and gave him a cloak. Miles Standish showed him the cannon on the hill and told him to tell his people about it, but the Pilgrims thought he would remember the lesson of love longer than he would remember the lesson of fear.

The Pilgrims and Puritans in Massachusetts and
Connecticut.

GORDY, page 53

About 1,000 Puritans, Led by Winthrop, Sail for America, page 59.

At Merrymount, near Charlestown, a lawless trading post flourished. Thomas Morton was the master of Merrymount. The Puritans decided to abolish the settlement because they did not approve of Morton's methods of getting the Indians drunk and cheating them in trade. Morton was captured and banished to England.

The Puritans feared that Morton might make trouble for them in England. Sir Richard Saltonstall, Governor Winthrop's best friend, returned to England and promised to do what he could for the Puritan cause.

In England, the King appointed a Commission to investigate the Puritan Charter. The Puritans had many bitter enemies in England. One of them was Sir Ferdinando Gorges, the founder of Maine. The Charter of the Puritans was the only thing that kept him from becoming Governor General of all New England, and he tried to prove that his claim to the land preceded that of the Puritans. Archbishop Laud, who presided over the Commission, was also a bitter enemy of the Puritans. He decided that the Puritans had violated the conditions of their Charter, and demanded its immediate surrender. The Puritans refused to give it up and expected that England would use force to secure it but before this could be done, conditions at home grew so serious that England was not able to send money, ships, or soldiers to America to secure the Charter.

Harry Vane, the son of a powerful nobleman in England, came over to the colony and so won the respect of the people that they elected him Governor to succeed Winthrop. However, the people were not satisfied with his rule, principally because he became interested in the religious teachings of Anne Hutchinson, one of the dissenters in the colony. Consequently, at the next election, Winthrop was again elected Governor. Soon after this, Vane returned to England.

Roger Williams, Driven from Massachusetts, Establishes Religious Freedom in Rhode Island, page 63.

The Puritan magistrates decided to drive Williams from the colony. Governor Winthrop was a good friend of Roger Williams, and when he heard of this plan, he sent a letter to Williams, warning him.

The English in Virginia and Maryland.

(Jamestown)

GORDY, page 40

Two Large Merchant Companies Receive a Charter to Colonize America, page 40.

The London Company sent its first settlers in three small ships—the *Susan Constant*, the *Goodspeed*, and the *Discovery*.

Dale Establishes Individual Ownership, page 43.

Powhatan, a chieftain of the great Algonquin race, whose dominion extended over many loosely linked tribes, was a dangerous neighbor of Jamestown. He sent men as traders to the settlement to find out whether it was weak enough to be attacked. The fields of the settlers were outside the stockade, and while the men were working there the Indians would attack them and kill them. The Indians were encouraged to do this by the Spanish people in Florida who were anxious to get rid of the English in Virginia. Finally Pocahontas, the daughter of Powhatan, was taken prisoner by the English. Governor Dale persuaded John Rolfe, one of the colonists, to marry Pocahontas. He hoped that this would be a means of keeping peace with the Indians.

Governor Dale's laws were very strict. He realized that the fate of the colony hung by a thread. A man who had cheated an Indian who traded corn had to stand in the pillory for twenty-four hours. A man who killed a chicken without permission was sentenced to death.

Don Diego Molina had allowed himself to be captured so that he could report on the strength of Jamestown to his monarch in Spain. He used to smuggle messages through to the Spanish in Florida, telling them how the strict laws were causing discontent in the colony.

The London Company talked of giving up the colony, but Dale persuaded them to keep it up. He wrote in a letter:

"I have seen the best countries of Europe. Put them all together and Virginia will equal them—if only it be inhabited with good people."

The Dutch in New York.

(Peter Stuyvesant)

GORDY, page 71

New Netherland Becomes One of the English Colonies, 1664,
Gordy, p. 75.

Peter Stuyvesant ruled the people of New Netherland with an iron hand. When they protested against his rule he wrote a letter saying, "We derive our authority from God and Company, not from a few ignorant subjects, and we alone can call them together." Mrs. Stuyvesant and the Rev. Johannes Megapolensis, the minister of New Amsterdam, tried to persuade Stuyvesant to treat the people more gently.

The people of the Dutch colony were industrious. Even the little girls were not idle, but helped with the spinning. Almost all of the houses had tulip gardens. There were plenty of games in the colony. The boys used to go skating, and the men played a game called "kolf" which was somewhat like our golf.

A great many English colonists lived at Gravesend on Long Island under Dutch rule. These Englishmen objected to the tyranny of Peter Stuyvesant and wished that the colony might be self-governing as was the case of the English colonies in America. Some of the Englishmen went back to England and pleaded with King Charles to send a fleet to capture the Dutch colony. They took with them some samples of furs from the colony in order to show the King the wealth of New Amsterdam.

The palace of King Charles II in England was very beautiful. Rare tapestries hung on the walls, and the rooms were filled with richly carved furniture. The palace was surrounded by gardens, where beds of flowers bloomed beside fountains, and where paths lined with high hedges led the way to marble benches reflected in

deep pools. In these gardens the members of Charles' court used to gather to play battledore and shuttlecock, and to drink the new drink from India—tea.

New Amsterdam had ignored Stuyvesant's plea for a better defense. The men played kolf instead of mending the palisades which were supposed to protect the settlement. Stuyvesant had organized a "Burgher Corps"—an organization of men who were supposed to be prepared to defend the colony. However, the men refused to take this duty very seriously and did not attend the drills regularly. There was scarcely enough powder in the settlement for three cannon. New Amsterdam was not, therefore, prepared to offer a strong defense when the English fleet appeared. Nevertheless, Stuyvesant refused to accept the English terms of surrender, and prepared to defend the settlement. Just as he was about to give the signal to fire on the English ships a petition was handed to him asking him to surrender and not to sacrifice the lives of the people. His own son's name headed the list. When Stuyvesant saw this, he consented to surrender.

The French and English in America.

(The Gateway to the West)

GORDY, Chapter V

The Ohio Company Comes in Conflict with the French, page 91.

In 1753 England's affairs were in the hands of an indifferent Prime Minister—the Duke of Newcastle. Governor Dinwiddie of Virginia sent him a warning concerning the French invasion of the Ohio country. The Duke of Newcastle replied to this warning by giving Virginia permission to expel the French. One of his assistant's—an able, energetic young statesman named William Pitt—realized the danger in America and urged that England send guns and men to help the colonists, but this was not done.

Washington Is Sent on Important Mission to the French Forts, page 92.

When Governor Dinwiddie received permission from England to expel the French he looked about for the man to send as mes-

senger. His choice was Major George Washington—the young master of Mount Vernon—who was leading the life of a typical country gentleman of that day.

When Washington went to Fort Le Boeuf he was accompanied by a guide named Christopher Gist, and an interpreter named Van Braam.

Fighting Begins at Great Meadows, page 93.

When the French refused to leave and it was certain that force would be used, it was suggested that Washington be given the title of Colonel and be put in full command of Virginia's expedition against the French. Washington refused, on account of his youth and inexperience. He went on the expedition as Lieutenant Colonel under Colonel Fry.

Colonel Fry remained at Will's Creek while Washington went on with a small advance party. The French at Fort Duquesne learned of this and sent troops under Ensign Jumonville. Christopher Gist brought news to Washington that the French were approaching and he advanced to meet them. An Indian named Half-King told Washington where the French were hiding. On May 28, 1754, Washington surprised the French, killing Jumonville and wounding many of his men. Washington had difficulty in keeping his Indian allies from scalping the wounded French. Jumonville's brother DeVilliers at Fort Duquesne promised to punish "this Washington, the murderer of my brother, and drive his barbaric English from the King's domain."

Washington learned of the death of Colonel Fry at Will's Creek. This meant that he was in command of the expedition.

Washington returned to Virginia after abandoning the campaign against the French. He knew that he had done the right thing but he was afraid that the Governor would not understand. He said to Dinwiddie, "I was forced to abandon the campaign. I am sorry." Dinwiddie replied, "Sorry? What have you done to be sorry for? Don't you see that now war has come? Out of the war will come a peace which will give us a wonderful country across the Ohio. Thousands will go through the 'Gateway to the West.'"

Wolfe and Montcalm.

(Photoplay, Wolfe and Montcalm)

William Pitt Saves the Cause of England, page 96.

In England, William Pitt and Lord Anson, Chief of the Admiralty, talked over the necessity of strengthening England's Navy. They decided that their first task was to free the American colonies from every trace of the French menace. Pitt said, "Britain's sword must cut out new boundaries, Admiral! You are its hilt—Saunders, with his Canadian fleet, the blade—and General Wolfe, the point!"

Wolfe Wins a Brilliant Victory at Quebec, page 96.

On board the British frigate *Sutherland* on September 12, 1759, the Doctor was worried over Wolfe's condition. Wolfe said he knew that the Doctor had done everything possible for him and that he would be content with only twenty-four hours more of life.

Montcalm warned Vaudreuil, the Governor-General of Canada, that the English were preparing for a new attack, but Vaudreuil refused to believe him and assured him that the English were going to retreat. Montcalm warned Vaudreuil that the danger point lay where the convoys from Montreal landed—the Foulon, at the base of the cliffs of Quebec—and asked for an entire regiment to guard it. Montcalm did not trust Captain Verger who was guarding the Foulon, but Vaudreuil refused to remove him or to send reinforcements.

Wolfe had the British ships keep up a constant bombardment while he made his plans to get his 1,700 picked men up the cliffs. He had an idea that he would never return alive, and he left directions concerning what should be done with his possessions. He wrote a farewell letter to his mother.

The Commandant at Quebec sent word to Governor Vaudreuil that "a handful of mad Englishmen have landed at the Foulon." Vaudreuil said, "Don't send for Montcalm. I can handle the matter later with my Canadians." Then he went on with his breakfast.

After Quebec was captured it was necessary to withdraw the British fleet from the St. Lawrence because of the approach of win-

ter. Pitt realized that the English army was shut in at Quebec and that as soon as spring came the French would send troops from Montreal and attack them. He knew that victory depended upon which side could get the first fleet up the river in the spring. All through the winter the English army suffered terribly from disease and cold. By spring only half of the 8,000 men could bear arms. The French had surrounded Quebec and the English were unable to get out. Both sides were waiting for their fleets. The English fleet was the first to arrive. The French immediately retreated to Montreal where they made their last stand. Vaudreuil was finally compelled to surrender to the English.

The American Revolution.

(The Eve of the Revolution)

How the Colonists Resist the Stamp Act, Gordy, page 126.

August 14, 1765—Effigies of Andrew Oliver, the Stamp Collector, and Lord Bute, late Prime Minister of England, were hanged in Boston. Bute was represented by a large boot. Among those present were John Hancock, one of the richest of Boston's younger merchants, and Samuel Adams, whom the Royal Governor Hutchinson called "The Great Incendiary, in whose hands all other men are puppets." As they watched the hanging, Adams said, "It will take more than this to teach the King that America will not submit to injustice," and Hancock replied, "If they insist on this Stamp Act, I will sell my stock in trade and close my warehouse doors."

The British Soldiers, Sent To Enforce Revenue Laws, Fire on Citizens of Boston (1770), page 131.

The small boys of Boston, imitating their elders, taunted the British soldiers on guard by calling them "Lobster-backs!" Goaded by these taunts one of the soldiers struck one of the boys. Seeing this, three other boys ran and rang the bell to arouse the citizens. The boy who was struck pointed to one of the soldiers saying, "There he is—the man who tried to kill me!" As the crowd pressed closer, the calmer members begged the soldiers not to fire. One of the soldiers said, "If they touch me, I fire!"

The meeting of protest was held in the South Meeting House.

Two of the soldiers were later convicted of manslaughter.

Samuel Adams Presides at a Meeting of Protest Which Ends in the "Boston Tea Party" (1773), page 133.

Sam Adams, watching the Boston Tea Party, said, "These 'Indians' are resolved to see how tea mixes with salt water."

Tea worth eighteen thousand pounds was emptied into the harbor.

When the "Indians" saw a man trying to fill his own pockets with tea, they threw him overboard.

King George removed the seat of Government from Boston to Salem.

The Colonies Unite in Sympathy with Massachusetts and Call the Continental Congress (1774), page 135.

In 1774 the Assembly met at Salem to consider coöperation with other colonies to resist oppression from overseas. John Hancock presided over the meeting. The door was locked to prevent the Tories from leaving, so that there would be a quorum to do business. Adams said to some of his friends that he had been promised the last vote necessary for a majority in favor of appointing delegates to the proposed Continental Congress. He told the doorkeeper that the door was not to be opened until he gave him permission to open it. The motion was made that five members of the Assembly be appointed as delegates to the Continental Congress to be held in Philadelphia in September. Unable to stop the debate or prevent the election of the delegates, the Tory members resolved to leave the meeting. Adams said, "That door will not be opened until the business of the meeting is finished." One of the Tories pretended to be ill. Pretending that he needed air, he opened a window, jumped out and ran to the Governor's headquarters which had been established in Salem for the session of the Assembly. Upon hearing of the meeting Gage said, "Curse that trickster Adams! He is responsible for nine-tenths of the trouble in this province." Gage had an order drawn up for dissolving the Assembly. The messenger went to the meeting and shouted through the closed door, "Open! Open, in the King's name! I bring orders from General Gage to dissolve this assembly. Anything it may do will be illegal." Adams answered, "That door will not be opened till all the business of this meeting is finished." They elected Sam Adams and four other delegates to the

proposed Congress in Philadelphia and voted relief for the people in Boston, and assessed the people for necessary expenses.

The "Embattled Farmers" Resist the British at Lexington and Concord and Drive Them Back to Boston, page 138.

General Gage ordered Colonel Smith, Major Pitcairn, and Earl Percy to head the British troops to capture Hancock and Adams and destroy stores at Concord.

Hancock and Adams were staying at the Parson Clark House in Lexington.

Lexington was eleven miles from Boston. The people there had sent the following word: "We shall be ready to sacrifice everything dear in life, yea, even life itself, in support of the common cause."

The Minutemen at Lexington were under the command of Captain John Parker. General Pitcairn, the English commander, shouted, "Lay down your arms and disperse, ye damned rebels."

The British under Lieutenant Colonel Smith were in Concord by seven o'clock, April 19. Detachments marched to the north and south bridges in search of military stores. At the north bridge the colonial soldiers under Captain Buttrick attacked a British regiment. The colonial troops advanced steadily. After waiting vainly for expected reinforcements, the British wavered and began to break. British reinforcements under Percy at last reached Lexington, and here the exhausted British troops were received in a hollow square and protected by their comrades.

(The Declaration of Independence)

The Declaration of Independence, a Remarkable Historical Document, Is Adopted July 4, 1776, Gordy, page 144.

John Dickinson of Pennsylvania was the leader of those who still clung to the hope of a reconciliation with England.

Rutledge was the leader of the South Carolina delegation.

In the middle colonies, many favored reconciliation because they feared the loss of their property.

The south had not yet felt the scourge of war.

See Beard and Bagley, page 149, and Gordy, pages 155-156, for France's attitude toward the colonies at this time.

See also Gordy, page 146, for the Tory situation.

The people were divided into three groups—royalists, moderates, and rebels.

On June 8, 1776, Lee offered his Resolutions in Congress, but it was impossible to secure the approval of everyone, and voting was postponed (textbook gives date as June 7).

Few delegates slept during the hot night of the first of July. The meeting to vote on Independence was held the next day, July 2, 1776.

Two of the Pennsylvania delegates who did not feel Independence wise—Dickinson and Morris—stayed away when the voting took place in order that Pennsylvania might vote Aye.

Delaware's third delegate—Caesar Rodney, whose vote was necessary to secure her vote for independence—was away at his home. A messenger was sent to fetch him and by riding all night he arrived just in time to cast his vote.

South Carolina's delegates were instructed to join in such measures as would best promote the interests of all. They looked upon these instructions as broad enough to allow them to vote for independence.

The New York delegation was not authorized to vote on Independence, but since all the other colonies voted Aye, the vote was considered unanimous.

There were two Charles Carrolls in Maryland, so Carroll signed his name as Charles Carroll of Carrollton, in order that there might be no mistake. He was one of the richest men in the country, and therefore stood to lose more than most by signing.

As Hancock signed the Declaration he said, "John Bull won't need his spectacles to read that name!"

The Declaration of Independence was made known to the people on July 8.

(Yorktown)

The Surrender of Cornwallis, Gordy, page 170.

Early in 1781, Washington at New Windsor, New York, considered his problems. He realized that the military situation was desperate. The enemy held New York and Charleston, and controlled the sea. They could outflank the American forces at will. Washing-



Washington and his generals hold a council of war at the New Windsor headquarters of the American commander in chief.

(From "Yorktown," one of The Chronicles of America Photoplays)

ton realized that nothing could be done without the French fleet which was at Brest, three thousand miles away.

At Brest, Count de Grasse, Chief Admiral of France, impatiently awaited his sailing orders, realizing that if he could cut the British lines of communication the war would end.

In the spring of 1781, Cornwallis moved north into Virginia. He dispatched General Tarleton to capture Governor Jefferson and the Assembly of Virginia. John Jouett, who guessed that Tarleton meant to capture the Assembly at Charlottesville, rode to spread the alarm. His ride saved the Assembly, but the situation had already driven Thomas Jefferson to beg Washington for aid.

Washington realized that everything depended upon the French fleet. If he went south before the fleet cut the communication between the northern and southern British armies, he would be caught between them and crushed.

Rochambeau joined Washington in New York, bringing the news that the French fleet was approaching America.

Clinton at his headquarters in New York was informed that some movement was on foot among the American forces, and that the French fleet was approaching. He refused to credit these rumors. When he finally awoke to the danger and sent the British fleet to combat the French fleet, it was too late. The British fleet, greatly outnumbered, was defeated in the battle of the Chesapeake on September 5, 1781.

Warfare of the Border.

(Vincennes)

The British Continue the War by Aid of the Indians, Gordy, page 159.

Hamilton, the British Governor, held a parley near Detroit with friendly Chippewa chiefs. Hamilton was told that if he let loose these devils upon the rebels, the whole country would rise to drive him out, but his idea was that a great war was being fought against King George, and that the British needed the Indian allies to harass the enemy. He instructed the Indians that there was to be no war against women and children, but the Indians failed to heed these instructions.

With Less than Two Hundred Men, Clark Wins a Vast Region for the Future Nation, Gordy, page 162.

George Rogers Clark told Patrick Henry, the Governor of Virginia, that he could drive the British out of the Northwest if Virginia would stand the cost of recruiting. Patrick Henry promised to ask the Assembly to grant the necessary money.

From its base at Fort Pitt, Clark's expedition proceeded to Kaskaskia which it occupied without a fight. There, in an old Jesuit Mission House, Clark held a conference with his officers. Francis Vigo, a Spanish trader who had been released by the British as a non-combatant, told Clark that the trails to Vincennes were deep under water. Clark decided to undertake the trip, and overruled the objections of his officers that it could not be done.

Hamilton at Vincennes decided not to attack Kaskaskia until spring, and, therefore, permitted his Indians to go home with the promise that they would return in the spring. Captain Leonard Helm, an American officer captured by the British, joked with Hamilton about the possibility of capturing Clark.

Dawn of February 23, 1779, found Clark and his men facing Horseshoe Plain—five miles of flooded forest—beyond which lay Vincennes. They reached Vincennes that evening and decided to attack at once. The half-frozen Virginians strode into the village so unexpectedly that the French people of the village could not believe what they saw. Hamilton and Helm were playing a game of cards when they heard the first shots. Hamilton declared it was drunken Indians on a spree, but Helm was firmly convinced that it was Clark.

Clark and Hamilton met for a parley in the little church at Vincennes. Clark insisted that Hamilton was not entitled to the usual military courtesies of honorable surrender and that he must surrender without terms. Hamilton asserted that his men would rather die fighting than surrender without the honors of war. Terms were finally arranged on February 25, 1779.

From the vast territory from which the British were expelled by Clark, came five great states—Ohio, Indiana, Illinois, Wisconsin, and Michigan.



Governor Hamilton and his men salute George Rogers Clark
and his forces at the gates of Fort Sackville.

(From "Vincennes," one of The Chronicles of America Photoplays)

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MOTION PICTURES IN HISTORY TEACHING

By
Daniel C. Knowlton
and
J. Warren Tilton

Visual education, in all its forms, is commanding more and more attention from leaders in primary and secondary education. Motion pictures in particular have found a definite place in many school systems and are being used with increasing success and effectiveness each year. It therefore seemed wise to members of the Department of Education at Yale University to make a careful study of the value of motion pictures in teaching. It was decided to conduct the test in the field of American History at the Junior High School level and to use ten of the Chronicles of America Photoplays. Each experimental class was planned to extend over a period of six months. The purpose of the experiment was to determine, if possible, how much added interest motion pictures created, how much they contributed to the learning of fundamentals, how much they enriched the course and to what extent they helped the students to retain what they had learned. The progress of each experimental group using the motion pictures was compared with a control group which did not have the pictures but which was taught by the same teachers and with the same methods. To assure accuracy each pupil in each of the experimental and control groups was tested five times during the experiment. The results—which are given in this volume—form an interesting and accurate contribution to the study of visual education.

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